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For a Lincee
Friend June



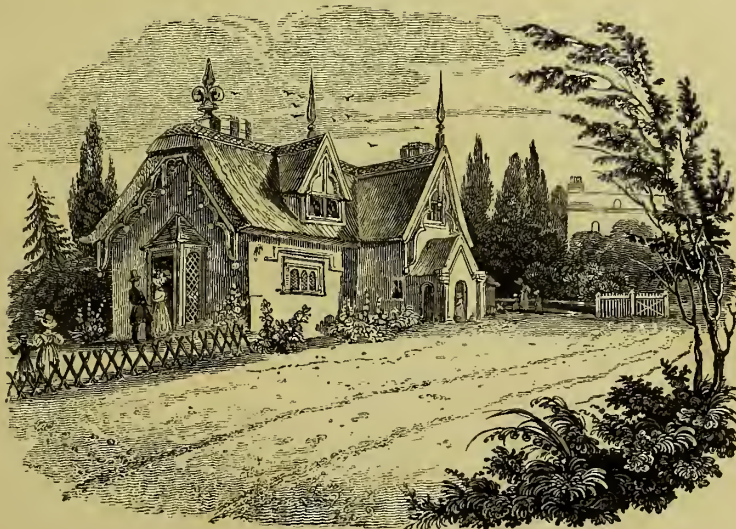
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A SELECTION
FROM
PINNOCK'S GUIDE
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AND GENERAL INFORMATION;

WITH ONE HUNDRED AND TWENTY ENGRAVINGS.

In going over the Stock of this valuable Stock, it was found that some hundreds of thousands of Numbers were left beyond the complete sets; and as it would have been a matter of regret to make waste paper of them, they are bound up in this cheap form as an odd volume of miscellaneous and instructive reading; and as for the most part each number is complete in itself, the non-connexion of dates and pages will be immaterial.



Lodge at Euolah Spa.

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THE GUIDE TO KNOWLEDGE.

EDITED BY MR. W. PINNOCK,

AUTHOR OF "PINNOCK'S CATECHISMS," "GRAMMAR OF GEOGRAPHY AND HISTORY," ETC., ETC.

No. VI.]

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ONE PENNY.

A BRIEF HISTORY OF ENGLAND.

INTRODUCTION.

As a knowledge of History is universally admitted to be of the greatest utility to *Society*, and particularly that which relates to one's native country, it is conceived, that the following *brief Essay* on the History of ENGLAND will not be found inappropriately introduced into "*The Guide to Knowledge*;" and we hope that our readers will find it both useful and amusing.

Besides, the history of our country may serve as an epitome of that of the whole world, as we are not inferior to any nation on the globe, either in *Literature, Science, and Arts*, or in *Arms*, and can boast of heroes as illustrious, and of men as eminent and transcendent in science, as any people either in ancient or in modern times. To what nobler purpose then, can we devote our leisure hours, than that of surveying the progress of our country in literature, science, and the arts, through a long course of time? What can more influence the heart with love of virtue, or excite aversion to vice, than the striking display of characters in history? In short, what better inducements can we have to make us good subjects, than a review of our inestimable privileges and liberties? Privileges that should endear the constitution of this nation to every Briton!

When we consider the fortitude and wisdom of the Great Alfred; the conquering prowess of Edward the Third; the noble bravery and generosity of the Black Prince; the courage and affability of Henry the Fifth; and the unshaken firmness of Elizabeth; we are lost in surprise and admiration, and almost inclined to question the veracity of the relation. We are equally struck when we behold the exalted intrepidity of our admirals and generals; the profound abilities of our legislators and politicians; the deep researches of our philosophers; the wisdom and integrity of our judges and magistrates; and the honesty and disinterestedness of our citizens.

If such, then, are the advantages resulting from the study of history, it is hoped, that every attempt to illustrate this science, will not only meet the indulgence, but also, the approbation of the public. This little work differs very materially from all others; particularly in the conciseness or its style, and in the cheap form in which it is published. We also beg to call the attention of our readers to the "*Genealogical Table*," which we strongly recommend should be committed to memory; and those who shall attend to our suggestion, will, we are sure, be much pleased with the result.

A BRIEF HISTORY OF ENGLAND.

CHAPTER I.

THE Island of GREAT BRITAIN is situated in the Atlantic Ocean, and was, at the earliest period of its history, inhabited by barbarous nations, distinguished by the general names of *Britons* and *Caledonians*. The history of the southern portion of this island is usually denominated the "*History of England*," though the country did not receive that name until the time of the SAXONS.

English History may be divided into twelve heads, or periods.

I. That of the *Britons*, before the Roman invasion.

II. From the arrival of the *Romans* in Britain, to their departure.

III. From the departure of the Romans, to the formation of the *Heptarchy*, or division into seven kingdoms.

IV. From the formation of the Heptarchy, till their union under EGBERT, as sole monarch.

V. The *Saxon Dynasty* from the death of EGBERT, to its temporary removal by the DANES.

VI. From the usurpation of the Danes, to the restoration of the Saxon line.

VII. From the restoration of the Saxons, to the Norman Conquest.

VIII. From the Norman Conquest, to the contest between the houses of York and Lancaster.

IX. From the commencement of that contest, to the Union of the two houses, by the marriage of HENRY VII.

X. From that event, to the extinction of the House of TUDOR, by the death of ELIZABETH.

XI. From the accession of JAMES I., to the expulsion of JAMES II., or the House of STUART.

XII. From that period to the present time, including the Houses of *Orange, Stuart, and Brunswick*. In the course of which, SCOTLAND and IRELAND have been united to ENGLAND, and governed by the same legislature.

CHAPTER II.

The island of Great Britain, which is now so justly celebrated as the seat of wealth and freedom, is supposed to have received the name of *Britain* from the *Isles*, which the Greeks and Romans called *Britannia*, or the British Isles.

That part of the island of Great Britain, now called England, was, in remote ages, named *Albion*, but the appellation was afterwards changed for that of *Britain*.

As the manners of the southern *Britons*, were, in many respects, similar to those of the *Gauls*, they are supposed to have been of Gallic origin: those of the north assimilated more to the *Germans*.

Some of their customs, were, however, peculiar; they wore only loose garments of skins, and stained their bodies with the juice of a weed, now called *woad*, which gave them a blue tint. Some adorned themselves, likewise, with rude figures of the sun, moon, stars, and animals.

As the *Britons* practised no agriculture, they lived principally on flesh and milk; much of the former they obtained by hunting; the rest was supplied by their flocks and herds.

Along the southern coasts, the *Britons* were partially civilized by their intercourse with the Phenicians and Gauls, who traded with them for tin, &c. But in the interior of the country, they lived in the heart of forests, in little thatched huts, barely sufficient to shelter them from the inclemency of the weather.

The Britons were warlike, and used chariots in battle, which they managed with great dexterity, driving them furiously into the enemies' ranks; they armed themselves with a small shield, lance, and sword, but despised armour for the body.

The religion of the Britons resembled that of the Gauls. Their chief deity was *Tamaris*, or *Taran*, the Thunderer. To *Andate*, their goddess of victory, they sacrificed their prisoners of war.

The priests of their religion were called *Druids*, either from the British word *Deru*, or the Greek word *Drus*, each of which signifies an *Oak*. The Druids were the interpreters of religion, the judges of the land, and the instructors of youth.

They taught the immortality of the soul, and that, at death, it passed into the body of some other new-born animal: this is called transmigration. They revered the Oak as the emblem of their chief deity, and resided in the gloom of forests, or of groves.

The whole island was divided into a number of petty indepen-

* This brief sketch of the History of England, will be comprised in three numbers, and the "*Table*" here referred to will appear as soon as the engraving can be finished. Our next No. will contain fourteen portraits.

dent states, each under its own chieftain. These had frequent wars with one another, but, on the approach of a common foe, one was chosen as commander-in-chief of the whole assembled forces.

After the invasion of Britain by the *Romans*, the Druids appear to have been peculiarly the objects of their dislike, in consequence of their using their influence with their countrymen, in stirring them up to resist their oppressors.

To shun the persecutions and severities of the Roman governors, these venerable priests took shelter in the isle of *Mona*, now called *Anglesea*, whither they were pursued, and after a fierce contest, completely extirpated by *Suetonius Paulinus*, A. D. 61.

PERIOD II.

FROM THE ARRIVAL OF THE ROMANS TO THEIR DEPARTURE.

JULIUS CÆSAR, a celebrated Roman general,* having subjugated Gaul, now called France, was desirous of adding Britain to the Roman dominions: for this purpose he made a descent upon the island, with a strong body of troops, but, as his preparations had given the Britons an intimation of his design, he found the shore defended by a numerous army, under the command of *Cassibelan*, one of the petty princes of the country.

On the attempt of the *Romans* to land, they were opposed with much vigour and resolution by the *Britons*, that, in spite of the advantages they possessed in their superiority of arms and discipline, they seemed little inclined to advance, and it required all the influence of Cæsar to overcome their reluctance.

At length, they succeeded in repelling their half naked assailants, and in subsequent contests, the *Britons* were so completely defeated, as to induce them to sue for peace.

A violent storm having shattered Cæsar's fleet, he found it convenient to accede to their request, that he might return to *Gaul* and repair his damaged ships.

During his absence, the *Britons* made great preparations to oppose his return; they were, however, ineffectual. The *Romans* were everywhere victorious, and Cæsar burnt *Verulamium*, now *St. Alban's*, the capital of *Cassibelan*.

Cæsar, considering it imprudent to absent himself too long from *Gaul*, did not complete the conquest of Britain, but, after imposing an annual tribute, left the island. More important enterprises afterwards prevented his return.

The civil wars of *Rome*, prevented any attention to the affairs of *Britain* for some time, and the prudent policy of the *Britains*, who continually sent presents and submissive messages to the emperors, served to divert the threatened danger of subjugation.

At length the emperor *Claudius* resolved on bringing the island

under the Roman yoke, and for this purpose, sent *Aulus Plautius* with an army of about 20,000 men to complete its conquest.

The *Britains*, commanded by *Caractacus*, made a determined resistance, but they were defeated, and their prince carried captive to *Rome*. After great progress had been made in the conquest of the island, by *Plautius* and *Vespasian*, the emperor himself arrived in *Britain*, A. D. 44, and obtained a signal victory; he staid but sixteen days, and left *Plautius* its governor.

From this period *Britain* was a Roman province, for about 400 years; the inhabitants became civilized, and learnt the arts and sciences from the *Romans*, and were removed with the residence of several of the emperors. *Constantine the Great* was born at *York*.

But the Roman empire having suffered greatly from the invasion of Barbarians, and from internal commotions, the Emperor *Honorius* was compelled to recall his troops from Britain, and leave the *Britons* to their own government, A. D. 410.

A long season of dependance on the Roman power, however, had so enervated this once hardy people, that they found themselves unequal to repel the cruel incursions of the northern nations, the *Picts* and *Scots*.

After in vain applying for assistance from *Rome*, and enduring unheard of outrages from their savage invaders, their king, *Vortigern*, determined to solicit aid from the Saxons, and this brings us to our "THIRD PERIOD."

PERIOD III.

FROM THE DEPARTURE OF THE ROMANS, TO THE FOUNDATION OF THE HEPTARCHY.

The *SAXONS** were a people of *Germany*, celebrated for their ferocity, and terrible for their piracies and cruelty; yet such was the dreadful situation of *Britain*, that it was thought advisable to seek the aid of defenders like these.

The invitation of *VORTIGERN* was eagerly accepted, and *HENGIST* and *HORSA*, two valiant chiefs, with their followers, came to his assistance, drove back the invaders, and received as a recompense, the Isle of Thanet.

Allured by the agreeable settlement these adventurers had acquired, great numbers of their countrymen came over, and soon became as formidable to the *Britons* as the *Picts* and *Scots* had been.

Too late sensible of their error, the *Britons* attempted to oppose those new tyrants, but they were everywhere defeated, and their country was ravaged with fire and sword. In one of these contests *Horsa* was slain.

Amongst those who boldly opposed the inroads of the Saxons was the celebrated king *ARTUR*, of whose exploits we have many fabulous accounts; but his valour and conduct could not long avail against the numerous swarms of *Saxons* that continually arrived from *Germany*, and supplied the loss of those that fell in battle. The remnant of the *Britons*, therefore, took refuge in *WALES* and *CORNWALL*, and left their invaders in possession of the rest of the country.

The conquest of *Britain* was not, however, an easy achievement; it occupied many years, and the different chieftains, as they became masters of an extensive territory, erected it into a kingdom. At length, the whole of the kingdom was parcelled into *Seven Kingdoms*—*Kent*, *Sussex*, *Essex*, *Wessex*, *Mercia*, *East Anglia*, and *Northumberland*: these were called, from their number, the *Heptarchy*.

About A. D. 570, *St. Augustine*, with some other missionaries, arrived from *Rome*, to convert the *Saxons* to Christianity. *Ethelbert*, king of *Kent*, gave them a favourable reception, and soon became a convert, and many of his subjects quickly followed his example.

Obs. During the contentions of the *Saxons* with the *Britons*, the

* The *ROMANS* were a celebrated people of Italy; their seat of empire was *Rome*. At the time of their invading Britain, they were in their highest power of glory, having then conquered all the then known world, and extended civilization into countries buried in ignorance; till sinking beneath the weight of its own greatness, their empire was divided into those sovereignties which have since flourished in Europe. The *Romans* harassed Britain from about 50 B.C. till A.D. 488. Among the most celebrated of the British kings who opposed the invasion of the *Romans*, were *Cassibelan* and *Caractacus*. The *Britons*, under *Caractacus*, made a very obstinate resistance against the *Romans*, for about seven years, but were at last subdued, and their leader taken prisoner, and sent to *Rome*. A noble stand was also made against them by *Boadicea*, queen of one of the British tribes, who successfully attacked several of the Roman settlements, and entering London, already a flourishing colony, reduced it to ashes, and put to death all the settlers, to the number of 70,000. *Suetonius*, however, shortly after, avenged their death, in a decisive battle with the British heroine, wherein 80,000 of her followers perished, and *Boadicea*, to avoid falling into the hands of her victor, destroyed herself by poison. Many of the once celebrated Roman cities, which flourished in Britain, are now fallen into decay and into dust; one of these is *Silchester*, near *Kingsclear*, in Hampshire, where cornfields and pastures cover the spot once adorned with public and private buildings, all of which are now wholly destroyed! Like the busy crowds who inhabited them, the edifices have sunk beneath the fresh and silent greensward; but the finty wall which surrounded the city is yet firm, and the direction of the streets may be discerned by the difference of tint in the herbage, and the ploughman turns up the medals of the *Cæsars*, so long dead and forgotten, who were once the masters of the world. The most ancient historian of the *Britons* is *Gildas*, who was the son of one of the British kings.

* The *Saxons* originally were a tribe of Scandinavians, who, in the decline of the Roman Empire, settled in the northern parts of Germany, under the several names of *Saxons*, *Angles*, and *Jutes*, or *Danes*; hence, it will be observed, that the above people, by whom Britain was subdued, originally constituted but one nation, speaking the same language, and ruled by monarchs who all claimed their descent from the deified monarch of the *Tentons*, *Woden* or *Oden*. The *Jutes* dwelt in the peninsula of *Jutland*, the *Angles* in *Holstein*; but the *Saxons* were more widely dispersed throughout the northern parts of Germany.

Roman empire had been dissolved by the *Goths, Vandals, Huns, &c.* from the north of Europe and Asia, who, on its ruins, laid the foundation of the several states of Europe.

PERIOD IV.

FROM THE FORMATION OF THE HEPTARCHY, TILL THEIR UNION UNDER EGBERT.

The existence of so many petty kingdoms, naturally gave rise to perpetual wars, and Britain became a scene of devastation and blood. It would be tedious, and unprofitable to particularize these sad scenes, such only will therefore be mentioned as led more immediately to the consolidation of the several states.

Urged by remorse for their cruelties and oppressions, and instigated by the *Monks*, and the superstition of the times, no less than thirty Anglo-Saxon kings resigned their crowns, and retired into monasteries. By such practices most of the royal families became extinct.

In consequence, the thrones of all the kingdoms were seized by usurpers, except that of *Wessex*, which was occupied by EGBERT, the sole descendant of the first Saxon kings. The weakness of these usurpers afforded him a tempting opportunity of subduing their dominions, which, after repeated provocations, he successfully embraced.

Victory followed victory, until at length, A.D. 827, he was crowned *King of all ENGLAND*. He suffered some of the vanquished monarchs to retain their titles, but they were considered as *vassals*, and paid tribute.

In the reign of this monarch, the *DANES* began to make descents on the island, but he met, and conquered them, so that the latter part of his life was passed in tranquillity.

EGBERT died, after a prosperous reign of thirty-eight years, and was buried at Winchester. *South Britain* was first denominated ENGLAND in this reign.

The contemporary sovereigns of Europe towards the close of the Saxon Heptarchy, were *Le^v V.*, Emperor of the East*; the Empire of the West was revived by *Charlemagne*, king of France, A.D. 800; *Pope Gregory*; *Alfonso II.*, king of Leon and Asturias, in Spain; *Seواردus*, king of Denmark; *Siward*, king of Sweden; *Lesco*, duke of Poland; *Dougal*, king of Scotland; *Hugh V.*, king of Ireland; *Morwyn*, king of Wales.

PERIOD V.

OF THE SAXON DYNASTY FROM THE DEATH OF EGBERT TO ITS TEMPORARY SUSPENSION BY THE DANES.

ETHELWOLF, the only surviving son of EGBERT, succeeded his father, but, in a short time, found his tranquillity interrupted by a new invasion of the *DANES* in 840.

After many bloody struggles with these lawless freebooters, ETHOLWOLF, in 851, resigned the government of *Essex, Kent*, and *Sussex*, to his natural son ATHELSTAN, and with his assistance gave the *DANES* a decided overthrow.

Grateful to Providence for this success, he made a pilgrimage to *Rome*, with his son ALFRED, and engaged for himself, and his successors, to pay an annual tribute to the *POPE*, which was called *Peter's Pence*.

On his return, he found that ATHELSTAN was dead, and that his rebellious nobles had placed his son ETHELBALD on the throne; to avoid a civil war, he acquiesced in this measure, and contented himself with the provinces he had before assigned to *Athelstan*. Two years after this event, he died, A.D. 857, and was buried at *Steyning* in *Sussex*.

ETHELBALD continued on the throne of *Wessex*, but ETHELBERT, his brother, succeeded to that of *Kent*, left by his father. *Ethelbald* reigned, however, but two years and a half after his father's death, when the whole kingdom came under the dominion of ETHELBERT.

The reign of this prince was cruelly disturbed by the inroads and ravages of the *Danes*; at first he boldly repulsed their troops, but afterwards had recourse to the fatal expedient of attempting to purchase their forbearance by sums of money. *Ethelbert* died

* The Eastern Empire of the Romans comprised European Turkey, part of Italy, &c. Its capital was Constantinople.

A.D. 866, and was buried at *Sherborne*. He was succeeded by his brother ETHELRED.

ETHELRED succeeded to a very distracted kingdom, continually harassed and devastated by the piratical *DANES*. In one year he fought nine pitched battles; and in the sixth year of his reign was mortally wounded in an engagement with these unprincipled invaders.—A.D. 872. He was buried at *Winborne*.

This king is said to have created his brother Alfred, earl, which is the first mention of that title in history. He was succeeded by ALFRED, who was afterwards called "*Alfred the Great*."—He was buried at *Sherborne*.

The cotemporary sovereigns of this reign were *Michael III.* Emperor of the East; *Louis II.*, Emperor of the West; *Nicholas I.*, Pope; *Charles I.* king of France, A.D. 841; *Garcias*, king of Navarre; *Ordengo*, king of Leon and Asturias (now part of modern Spain); *Necklan*, Duke of Bohemia; *Piast*, Duke of Poland; *Charles VI.*, king of Sweden; *Canute I.*, king of Denmark; *Constantine II.*, king of Scotland; *Malachi III.*, king of Ireland; *Roderick II.*, king of Wales.

PERIOD V. (CONTINUED).

ALFRED.

ALFRED succeeded to a kingdom, depopulated, desolated, and still overrun by merciless plunderers. He made many vigorous efforts to free his beloved country from this dreadful scourge, but, for some time, they were unavailing.

So far, indeed, was he from success, that he was reduced to the last extremity, and obliged to take refuge in the cottage of a neatherd, in the isle of *Athelney*, in Somersetshire, where he was treated by those ignorant of his quality, with great indignity.

Having remained in this obscure retreat until the search of the *Danes* for him became less vigilant, he adopted the bold and dangerous measure of entering the Danish camp, as a wandering minstrel, and having, in this disguise, reconnoitred their strength, and observed their careless confidence, he retired unsuspected.

Secretly assembling his nobles, and collecting an army, he suddenly fell upon the *Danes*, when they little expected such an event; totally defeated them, and preserved his kingdom from their oppressive intrusions.

From this time, he applied himself to the arts of peace and good government, founded the *University of Oxford*, divided the kingdom into counties, hundreds, and tithings, encouraged learning, and learned men, and wrote several books for the instruction of his people. He died A.D. 900, after a reign of 28 years, and was buried at Winchester. He was succeeded by his son EDWARD.

Among the cotemporary sovereigns of Alfred were *Leo VI.*, Emperor of the East; *Arnold*, Emperor of the West; *Fortunio*, king of Navarre; *Necklan*, Duke of Bohemia; *Adrian II.*, Pope; *Alfonso the Great*, King of Leon and Asturias; *Charles III.*, of France; *Olaus*, King of Sweden; *Lesco*, Duke of Poland; *Hugh VI.*, King of Ireland; *Haral II.* King of Denmark; *Donald III.*, King of Scotland; *Roderick II.*, King of Wales, A.D. 843. This king, at his death, which happened A.D. 877, divided Wales into three principalities, viz. *North Wales*, *South Wales*, and *Powys Land*, and bestowed them on his three sons; from which time no king appeared in WALES.

EDWARD found, on his accession, a competitor for the crown, in the person of *Ethelward*, the son of his uncle ETHELBERT. After several engagements, however, the latter was slain in battle in 905. The reign of EDWARD was a turbulent one, as his kingdom was invaded by the *Irish, Danes, Scotch*, and *Welsh*.

By his valour and activity, he at length succeeded in delivering his country from these formidable foes, and after a reign of twenty-five years, he died in 925, and was buried at *Winchester*. He is usually known by the name of "*EDWARD THE ELDER*."

He was succeeded by his eldest son ATHELSTAN, who had, like his father, to combat with the turbulent *DANES*, that had settled on his dominions. He repressed the incursions of the *Scots*, and obliged the *Welsh* king *Howel* to pay him tribute. This prince died A.D. 940, and was buried at *Malmesbury*.

1. EDMUND, the brother of ATHELSTAN succeeded him. He was greatly annoyed by the *Northumbrian Danes*, but having

* The kingdom of Navarre was situated between France and Spain, and comprised the southern part of modern France and the northern part of modern Spain. It was divided into two parts, by the *Pyrenees*, and was called the Upper and Lower Navarre. Lower Navarre belongs to France, the Upper to Spain.

subdued them, he bestowed the counties of *Cumberland* and *Westmorland* on *Malcolm*, king of Scots, on condition that he should do him homage, and protect the north of *England* from the incursions of the *Danes*.

After a reign of seven years, *Edmund* was assassinated at a feast near Gloucester, by *Leolf*, a robber, who had audaciously returned from banishment, and imprudently intruded into the king's presence. A.D. 948.

His sons being too young to reign, the throne was mounted by his brother *EDRED*, who did nothing remarkable. He died in 955, and was buried at Winchester. He was succeeded by *EDWY*, the son of *Edmund*.

Among the cotemporary sovereigns of *Edmund* were *Constantine VII.*, Emperor of the East; *Otho I.*, Emperor of the West; *Pope John XII.*; *Louis IV.*, King of France; *Gareias I.*, King of Navarre; *Malcolm I.*, King of Scotland; *Harold III.*, King of Denmark; *Eric VIII.*, King of Sweden; *Donoughue*, King of Ireland.

EDWY succeeded to the throne when he was only sixteen years of age; and had he been left to the natural bent of his own inclinations, he would undoubtedly have governed well; but being an enemy to the superstitions of the monks, they became his inveterate foes.

The monks, however, headed by *Dunstan*, abbot of *Glastonbury*, had become so powerful, that they thwarted the king in all his measures, took from him his queen, and instigated his brother *Edgar* to rise in rebellion against him.

These troubles, no doubt, hastened his death, which took place in the twentieth year of his age, and the fourth of his reign, A.D. 959. He was buried at Winchester. He was succeeded by *EDGAR*, the younger son of *Edmund* the First.

EDGAR, although only sixteen years of age when he ascended the throne, soon discovered an excellent capacity for government; he maintained a considerable body of well disciplined troops, and supported a formidable navy. His power was so much respected, that the king of Scotland, the princes of *Wales*, those of the Isle of Man, and even the king of *Ireland*, with whom *England* had hitherto had little or no intercourse or commerce, paid submission to him. The monks who had been banished by *Edwy* were now recalled, and *DUNSTAN* was made archbishop of *Canterbury*. He also built forty monasteries. He died A.D. 975, and was buried at *Glastonbury*.

It is related of this prince, that being at *Chester*, and making an excursion by water, he was rowed down the river *Dee* by eight princes, who were tributary to him.

EDWARD his son succeeded when only fourteen years of age. His reign was rendered unhappy by the dissensions of the clergy and the monks, and by the opposition of his mother-in-law, *ELFRIDA*, by whose orders he was assassinated, as he was sitting on horseback at the gate of *Corfe Castle*, then her residence. From his untimely death, which happened in the fourth year of his reign, A.D. 979, he was surnamed the *Martyr*. He was buried at *Wareham*, and afterwards removed to *Shaftesbury*.

Among the cotemporary sovereigns of *Edward* were *Indulphus*, King of Scotland; *Congall*, King of Ireland; *John I.*, Emperor of the East; *Otho I.*, Emperor of the West; *Eric VIII.*, King of Sweden; *Harold III.*, King of Denmark; *Stephen*, King of Hungary.

ETHELRED, the son of *Edgar*, by *Alfrida*, next ascended the throne; but though his mother had incurred the guilt of murder, to procure for him the crown, he proved an ungrateful and undutiful son.

Finding the reins of government to be held by no very vigorous hands, the *DANES* renewed their depredations, and the *Welsh* shook off the yoke, and ravaged the borders of *England*. Instead of boldly meeting his enemies in the field, *Ethelred* dastardly consented to pay the *Danes* a tribute, which was called *Danegelt*.

Being unable to make good this engagement, his mean and cowardly mind conceived a dreadful expedient to get rid of his lordly oppressors. He ordered a general massacre of all the *Danes* in *England*, which took place A.D. 1002.

Such an expedient, however, served only to increase the evil it was intended to remove. *Sweyn*, King of Denmark, on hearing this news, vowed that he would take a bloody revenge. Accordingly, the next year, he invaded and overran *England*, causing unheard of miseries to its unhappy inhabitants.

With his usual dastardly policy, *Ethelred* attempted to purchase the forbearance of the *Danes*; but finding, at length, that this only

encouraged new inroads and devastations, he fled to *Normandy*, leaving *Sweyn* in possession of his kingdom.

Sweyn having been killed in battle, *Ethelred* returned, and remounted the throne, but the ravages of the *Danes* still continued, under *Canute*, the son of *Sweyn*, with very little opposition on the part of *Ethelred*. At length, he ended an inglorious reign of thirty-five years, A.D. 1016. He was buried at St. Paul's. He was succeeded by his son *EDMUND II.*

Among the king's cotemporary with *Ethelred II.* were *Sweyn* and *Canute*, kings of Denmark; *Malcolm II.*, King of Scotland; *Donald O'Neil, IV.* King of Ireland; *Hugh Copet*, King of France, &c.

EDMUND II., surnamed *Ironsides*, from his hardy valour, was the eldest son of *Ethelred II.* He fought several battles with *Canute*, who had assumed the title of "*King of England*;" and, at length, these brave monarchs, finding themselves nearly of equal strength, agreed to divide the kingdom between them.

Shortly after this amicable arrangement, the brave *Edmund* was assassinated by two of his chamberlains, instigated by *Edric*, his brother-in-law, A.D. 1017. He was buried at *Glastonbury*. From the specimen he gave of his conduct during his short reign, the nation entertained great hopes of a wise and vigorous administration.

The territory assigned to *Edmund*, comprised all the country south of the *Thames*, the city of *London*, part of *Essex*, and all *East Anglia*; whilst *Canute* possessed all the northern countries.

PERIOD VI.

FROM THE USURPATION OF THE DANES, TO THE RESTORATION OF THE SAXON DYNASTY.

CANUTE, who was now become sole monarch of *England*, was one of the most powerful sovereigns of *Europe*, having likewise under his dominion *Denmark*, *Norway*, and *Sweden*.

Conquerors must, of necessity, at first appear cruel, as they are obliged to repress, with a strong arm, those who are opposed to their sway; but the generous mind of *Canute* rendered him just and beneficent, as soon as his power was firmly established.

One of his first regal acts was to punish the traitor, *Edric*, and the assassins of *Edmund*. He divided all offices of trust, honour, and emolument, equally among the *English* and *Danes*, and married *Emma*, the widow of *Ethelred*.

By such measures, he quickly reconciled the minds of his new subjects to his sway. And his veneration for religion, evinced by his building many churches and monasteries, secured the good will of the clergy, the only historians of that day.

Disgusted by the adulation of his courtiers, who compared him to the *Deity*, he took an opportunity of effectually rebuking their extravagant flattery.

Walking on the beach at *Southampton*, whilst the tide was coming in, he called for a chair, and having seated himself near the water, commanded it to come no further. The waves still rolled in, and obliged this mighty sovereign to retire. *Canute*, then, turning to his courtiers, sternly rebuked their impious adulation, and from that time abstained from wearing the diadem.

In 1019, he went into Denmark, and defeated the *Vandals*. He died in 1036, and has left the character of a wise, just, and brave monarch, and a zealous friend of the church.

On the death of *Canute*, the *English* were desirous of restoring the Saxon line, but, after a warm dispute, the *Danes* prevailed, and *HAROLD*, the eldest son of the late king, succeeded to the throne.

To remove the pretenders to the crown, *Godwin*, a Dane, whom *Canute* had created *Earl of Kent*, invited over from *Normandy*, *Alfred* and *Edmund*, the sons of *Ethelred II.* On their arrival, he procured the murder of *Alfred*, but *Edmund* escaped.

After an inglorious reign of three years, *Harold*, surnamed *Harefoot*, from his extraordinary swiftness, died A.D. 1040; and was buried at Winchester. He was succeeded by his half-brother, *HARDICANUTE*, the son of *Canute*, by *Emma*, mother of *Alfred* and *Edmund*.

To revenge the death of *Alfred*, he caused the body of *Harold* to be taken from its grave, and thrown into the *Thames*, invited his mother and *Edmund* to his court, and summoned *Earl Godwin* to surrender to the charge of the latter for the murder of his brother. The power and wealth of that nobleman, however, enabled him to evade the claims of justice, and he was acquitted. From this time

Hardicanute proved himself violent, brutal, cruel, and unjust. He burnt Worcester for having resisted the odious tax of *Danegelt*, which he had revived.

To such a pitch of gluttony, drunkenness, debauchery, and cruelty, did *Hardicanute* arrive, that the anniversary of his death, which took place at a banquet at Lambeth, A.D. 1041, was long celebrated by the English with sports and games, under the denomination of *Hocktide*.

Among the cotemporary sovereigns of *Hardicanute* were *Michael V.*, Emperor of the East; *Henry III.*, Emperor of the West; *Pope Benedict IX.*; *Henry I.*, King of France; *Garcias III.*, King of Navarre; *Ferdinand I.*, King of Castile and Leon, in Spain; *Hakon*, King of Sweden; *Peter I.*, King of Hungary; *Udalric*, Duke of Bohemia; *Ramires*, King of Arragon; *Cusimir*, King of Poland; *Macbeth*, King of Scotland; *Brion Boromy*, King of Ireland.

PERIOD VII.

FROM THE RESTORATION OF THE SAXON LINE TO THE NORMAN CONQUEST.

On the death of *Hardicanute*, *EDWARD*, the son of *Ethelred* and *Emma*, was raised to the throne, by the influence of *Earl Godwin*, whose daughter he some time after married.

Notwithstanding this family connexion, *Edward* looked on *Godwin* with great dislike, not only as the murderer of his brother, but as possessed of too much power to be safely trusted. He therefore found a pretext for banishing the earl and his sons, and shut up his queen in a nunnery.

Towards his mother he was equally severe; for, fancying that she was more partial to her children by her second, than those of her first marriage, he deprived her of her possessions, and confined her in a convent at Winchester, where she died in 1052.

On the accession of *Edward*, the English flattered themselves that they should be delivered from the oppression of foreigners; but they soon found that they had only exchanged *Danes* for *Normans*, who crowded to the English court, and were put into the vacant bishoprics, and places of honor and profit.

In this reign the *Danes* were expelled the realm. The *Welsh*, who had invaded *England*, were defeated, and *Griffith*, their sovereign, was taken and beheaded. The odious tax, called *Danegelt*, was also abolished.

In 1051, *Earl Godwin* was reconciled to the King, and restored to his estates and honours; he, however, enjoyed them not long, as he died suddenly, in 1053, while at the King's table.

The death of the *Earl of Godwin* did not render the situation of *Edward* more agreeable, as his son *Harold* inherited his father's ambition, and publicly aspired to the succession: to thwart his views, the King sent for *Edward*, the son of *Edmund Ironside*, from Hungary, but he died soon after his arrival, leaving a son named *Edgar Atheling*, and two daughters.

WILLIAM, Duke of Normandy, having visited his kinsman *Edward*, that prince is said to have promised the succession to him. Soon after *Harold* was sent by the King to the court of Normandy, when *William* compelled him to swear the most solemn oath, that he would promote his pretensions to the crown of England.

In 1065, *Edward* commenced the erection of Westminster Abbey, and formed a code of laws, denominated from him, "*The Laws of Edward the Confessor*," from which is supposed to have originated our "*Common Law*."

Religion, bigotry, and superstition, tarnished the virtues of *Edmund's* mind, and rendered him cruel and unjust, particularly to his queen. His mistaken zeal and piety were, however, highly lauded by the clergy; and he received the already mentioned title of "*Edward the Confessor*." He died in 1066, and was buried in Westminster Abbey.

Notwithstanding the solemn oath by which he had bound himself to promote the succession of *WILLIAM*, *HAROLD* immediately seized the reins of government, and was proclaimed king.

William, however, was not idle; he sent an embassy to demand the crown, to which *Harold* replied, that he would resign it only with his life.

William lost no time in assembling an army of sixty thousand men, which he embarked on board a fleet of three thousand vessels. With this force he landed at *Pevensey*, in Sussex.

Unhappily for *Harold*, a short time before this event, his king-

dom had been invaded by his brother *Roston*, assisted by *Harfages* king of Norway. The king boldly attacked, and completely defeated them, both the chiefs being killed in battle. But this victory thinned his ranks, and his march back to the south harassed his troops, and rendered them less able to encounter this new foe.

In spite, however, of these disadvantages, he boldly attacked the army of *William*, on a plain, now called *Battle*, in Sussex: for a long time the contest was doubtful, until *Harold* having been shot with an arrow in the forehead, which caused his instant death, victory declared for the *NORMANS*. This great event happened October 14, 1066.

Thus was an end put to the Anglo-Saxon monarchy, after it had subsisted from Hengist the First, king of Kent, about 600 years.

The cotemporary sovereigns of *Harold* were *Malcolm III.*, King of Scotland; *Malachi III.*, King of Ireland; *Philip I.*, King of France; *Sancho IV.*, King of Navarre; *Sancho II.*, King of Castile and Leon; *Sancho*, King of Arragon; *Pope Alexander* - *Constantine IX.*, Emperor of the East; *Henry IV.*, Emperor of the West; *Solomon*, King of Hungary; *Boleslas*, King of Poland; *Sweyn II.*, King of Denmark; *Halsten*, King of Sweden.

CONVERSATION UPON THE PRECEDING CHAPTERS.

Q. Who were the BRITONS?

A. The first inhabitants of England, the same people as the *Cymri*, now called *Welsh*. They are supposed, to have descended from *Gomer*, the common ancestor of all Celtic tribes.

Q. Who were the ROMANS?

A. The Romans were a renowned people of Italy, who, at the time of their glory, were the conquerors of all the then known world. The Romans possessed Britain till A.D. 488.

Q. Who were the SAXONS?

A. The Saxons were a tribe of those Scandinavians who, in the decline of the Roman Empire, settled in the north of Germany and Denmark, under several denominations, viz. *Saxons*, *Angles*, *Jutes*, or *Danes*. They first landed in Britain A.D. 450, and established the kingdom of Kent, the first of the *Heptarchy*, A.D. 457.

Q. What was the HEPTARCHY?

A. The Heptarchy was the division of the land into seven kingdoms, established by the Saxons, as follow: Kent, Sussex, Wessex, East Anglia, Murcia, Essex, and Northumberland. The first of these began A.D. 457, as before observed, and the whole became united under one prince, A.D. 827.

Q. Who were the Saxon kings that governed England after the fall of the Heptarchy? and how long did they enjoy the English throne?

A. The names of the Saxon kings were *Egbert*, *Ethelwulf*, *Ethelbald*, *Elhelbert*, *Ethelred I.*, *Alfred the Great*, *Edward the Elder*, *Athelstan*, *Edmund I.*, *Edred*, *Edwy*, *Edgar*, *Edward the Martyr*, *Ethelred II.*, and *Edmund II.*, surnamed *Ironside*; making fifteen in number, whose united reigns make a period of 188 years, at the expiration of which this country was subdued by the Danes, who kept possession of the English throne from A.D. 1017 to 1041, when the Saxon kings were restored, making a period of 24 years.

Q. How many Danish Kings reigned in England;

A. Three; viz., *Canute the Great*, *Harold I.*, and *Hardicanute*.

Q. Who were the Saxon kings that reigned in England after the expulsion of the Danes, and by whom were they succeeded?

A. The Saxon princes who reigned after the restoration were two, viz. *Edward*, surnamed the Confessor, and *Harold II.*, after whom the crown fell into the possession of *WILLIAM THE CONQUEROR*, A.D. 1066.

PERIOD VIII.

FROM THE NORMAN CONQUEST TO THE CONTEST BETWEEN THE HOUSES OF YORK AND LANCASTER.

WILLIAM THE CONQUEROR.

Immediately after the battle of *Hastings*, *WILLIAM* marched towards *London*, where he was met by the magistrates and bishops, who offered him the keys of the city, and the crown.

For a time, *William* ruled with great lenity, but hearing that the Northumbrians had raised up in rebellion at *York*, he marched thither, and destroyed them in a general massacre.

From this time, *William* ruled the English with a rod of iron; he deprived the nobles of their estates, and bestowed them upon his *Norman followers*. He plundered the clergy, and imposed on them military service; and he destroyed numerous towns and villages in Hampshire, for the purpose of forming the New Forest, that he might indulge his favourite pastime of hunting.

In 1068 he revived the odious tax called *Danegelt*. He also built strong castles in various parts of the country to keep his new subjects in awe, and forbade any Englishman to keep fire and candle burning after the ringing of a bell, called the *Curfew Bell*, from the French words, *couvert feu*, or cover fire.



In 1078 William commenced the *Tower of London*, and built Newcastle. He introduced likewise the Norman laws and language, and ordered *Doomsday*-book to be compiled, which contained an exact account of every man's estate.

In this reign, *Malcolm*, king of Scotland, invaded England, but was defeated by William, and obliged to do homage for his crown. The *Welsh*, likewise, were defeated in several battles, and obliged to pay tribute.

William met with his death in a war with France, near the city of Nantes, by a fall from his horse, in 1087. He reigned 21 years, and was buried at *Caen*, in Normandy; he was succeeded by his son *William*.

This prince appears to have been cruel, rapacious, and revengeful. In person he was tall and portly, and so strong, that no one but himself could bend his bow.

Among the cotemporary sovereigns of William were *Malcolm III.*, King of Scotland; *Malachi III.*, King of Ireland; *Pope Gregory VII.*; *Constantine X.*, Emperor of the East; *Henry IV.*, Emperor of the West; *Philip I.*, King of France; *Sancho V.*, King of Navarre; *Alfonso VI.*, King of Castile and Leon; *Uratistat*, King of Bohemia; *Solomon*, King of Hungary; *Canute IV.*, King of Denmark; *Philip*, King of Sweden.

WILLIAM II.

As in this age, power, in many cases prevailed against right, *William*, the second son of the deceased king mounted the throne, to the exclusion of *Robert*, the eldest, who was absent in France. *William* was surnamed *Rufus*, from his red hair.

William was remarkable for a rash and ferocious bravery, but he was rude and brutish in his manners, irreligious, and without honour or honesty. Greedy of money only to waste it in lavish profusion.

It is probable, that his having seized the possessions of the church, occasioned his character to be more severely depicted, than it otherwise would have been by the *Clergy*, the only historians of that day.

Having rendered himself odious by his tyrannical actions, a conspiracy was formed for deposing him, and placing *Robert*, Duke of Normandy on the throne. But this prince, who was of an indolent disposition, neglected to send succours to the conspirators, *William* defeated their measures, and took a severe revenge.

Not content with having deprived his brother of the kingdom of England, he now attempted to wrest *Normandy* also from him. Though at first successful in this war, he was finally prevented

from accomplishing his wicked purpose by the vigorous opposition of prince *Henry*, his younger brother.



William likewise carried on a war with *Malcolm*, king of Scotland with various success, but at length he compelled that monarch to do him homage. Some time after the Scots renewed the war, when *Malcolm* was slain by a mean stratagem of the Earl of Northumberland, who pretending to deliver to him the keys of Alnwick Castle on the point of a spear, pierced him with it in the eye. From this circumstance, he acquired the name of *Pierceye* or *Percy*.

The *Crusade*,* or war against the *Saracens* for the recovery of *Judea*, having been set on foot about this time, *Robert* mortgaged his Duchy of Normandy to *William* for ten thousand marks, to enable himself to go on that romantic enterprise.

In 1098 *William* commenced the rebuilding of London bridge, a wall round the Tower, and Westminster Hall; for the completion of these undertakings he oppressively exacted great sums from his subjects.

At length, the career of this tyrant drew to a close; for, hunting one day in the New Forest, he was shot in the breast by an arrow, discharged by Sir Walter Tyrrel. This event has been generally ascribed to accident, but there is great reason to suppose that it was by design, to rid the world of such an oppressor.

The body was taken in a common cart to Winchester, where it was interred with little ceremony, A.D. 1100.

HENRY I.

ROBERT, the rightful heir being in Palestine at the time of this event, his brother *HENRY* seized the royal treasures at Winchester, and caused himself to be proclaimed king. As he was skilled in the learning of the times, he was surnamed *Beauclerc*.

It is common with usurpers to attempt to render themselves popular, by reforming abuses, redressing grievances, and rendering

* The history of the *Crusade*, or holy war, is briefly this: *Mahomet* had, by means of his pretended revelations, instituted a new religion; he put himself at the head of the Arabians, and took Jerusalem. The Christians had the mortification to see the holy sepulchre, and the other places made famous by the death of our Saviour, fall into the hands of the infidels. *PETER*, commonly called the *Hermit*, had made the pilgrimage to Jerusalem, and being deeply affected with the danger to which the act of piety now exposed the pilgrims, formed the bold project of leading armies into Asia, sufficient to subdue this powerful people, which now held the *Holy Land* in subjection. He proposed his views to the *Pope*, and to all the sovereigns of Christendom, who all united in this undertaking; men of all ranks flew to arms with the utmost ardour; the sign of the *Cross* became the badge of union, and was affixed to their right shoulder, by all who enlisted themselves in what they termed the sacred war.

themselves agreeable to the people. HENRY adopted this method of proceeding and thereby strengthened his authority.



To render himself more secure, he married *Matilda*, daughter of *Malcolm* (king of Scotland), by *Margaret*, the sister of *Edgar Atheling*; thus uniting the royal family of the *Saxon* with that of the *Norman line*.

In order to win the affections of his people, *Henry* confirmed the ancient *Saxon* laws, abolished the Curfew Bell, established a standard for weights and measures, and enacted many other salutary regulations.

Robert returning from the Holy Land, made a descent upon England, renewed his claim to the crown, but *Henry* compromised the matter, by giving up to him the towns of *Normandy* that were garrisoned by the English, and paying him an annual pension of three thousand marks.

Notwithstanding this reconciliation, the king of England invaded *Normandy*, defeated the forces opposed to him, and took his brother prisoner. Shortly after, he had him confined in the castle of *Cardiff*, where he languished twenty-six years. Thus *Normandy* again became united to the English crown. The effigy and tomb of *Robert* are still to be seen in *Gloucester cathedral*.

In 1115, *Henry* assembled the states of his kingdom, at *Salisbury*. This is said to have been the first parliament.

William, the eldest son of *Henry*, having married the daughter of the Earl of *Anjou*, was lost as he was returning to England with his bride, by his ship striking against a rock. This calamity so affected the king, that he was never seen to laugh after.

Having no other son, he bequeathed his crown to his daughter *Matilda*, who married, first, *Henry*, emperor of Germany, and next, *Geoffrey Plantagenet*, earl of *Anjou*, from whom descended the kings of the "*House of Plantagenet*". *Henry* died in *Normandy*, A. D. 1135, aged 66, and left the character of a brave, learned, and accomplished, but cruel, and avaricious monarch. He was interred in the Abbey of *Reading*.

STEPHEN.

(HOUSE OF BLOIS).

HENRY was no sooner dead, than *Stephen*, count of *Blois*, his sister's* son, usurped the crown, to the prejudice of the empress *Matilda*, to whom the nobles and clergy had sworn fealty during her father's life.

For the reasons already assigned, *Stephen* commenced his reign with many popular acts, and permitted no less than 1500 castles to be erected by the nobility, which afterwards occasioned him, and his successors, infinite trouble.

Finding his error when almost too late, and that the *Barons*

* Adela, the seventh child of *William the Conqueror*,

were now become too powerful to be easily controuled by the crown, he took vigorous measures to reduce them to obedience, and partially succeeded, but the enemies he thus created, invited *Matilda*, (daughter of the late king), to come over and take the possession of the throne.



For some time a bloody civil war raged between these rivals, until at length, *Stephen* was taken prisoner, and *MATILDA* was universally acknowledged *Queen of England*. But her haughtiness and pride having alienated the hearts of her subjects, she was driven from the kingdom, and *STEPHEN* reinstated on the throne.

He was not, however, destined to enjoy his dignity in peace. No sooner was *HENRY*, the son of *Matilda*, of sufficient age to command an army, than he landed in England, in 1152, with a formidable army; but to avoid bloodshed, both parties being about equal in strength, it was agreed, that *STEPHEN* should enjoy the crown during life, and that *Henry* should be acknowledged his successor.

Stephen survived this treaty not quite a year, and died on the 25th of October, 1154, in the 20th year of his reign. He was buried at *Feversham*.

Had *Stephen* being legally entitled to the crown, he would, there is little doubt, have been a good and merciful monarch; but circumstances obliged him to commitments of tyranny and imprudence, which his better judgment condemned.

HENRY II.

(OF THE HOUSE OF PLANTAGENET).

HENRY the Second, king of England, of the house of *Plantagenet*, was crowned at *Westminster*, December 19, 1154. His first care was to dismantle the numerous castles which the nobility and clergy had erected in the reign of *Stephen*, and to send away the foreign troops which that monarch kept in his pay. With great judgment and firmness, likewise, he took many other salutary measures for the good of his kingdom, and his own security. But the tranquillity of his reign was sadly disturbed, from a quarter where he least expected it. *Thomas-à-Becket*, whom the king had raised from a low station, to be archbishop of *Canterbury*, took part with the clergy against his benefactor.

After a violent contest, in which *Henry* strove to lessen the power and arrogance of the ecclesiastics, and *Becket* to support them, and several breaches and apparent conciliations had taken place, some over-zealous friends of *Henry* assassinated the archbishop in his own cathedral, Dec. 30, 1170.

Although there is no reason to suppose that *Henry* commanded the murder of *Becket*, he was obliged, in order to satisfy the superstition of his people, who regarded the archbishop as a martyr, to do penance, by walking barefoot, three miles, to his tomb, and submitting to be scourged by the monks.

In 1167, *Henry* undertook and accomplished the conquest of *Ireland*; in 1171, he divided England into circuits, and appointed judges of assize; in 1176, he caused London-bridge to be built of stone, the former structure being wood. And the *Scotch* and *Welsh* were chastised for their repeated incursions, and their princes were compelled to do homage to Henry for their crowns.



During the latter part of his reign, Henry experienced much inquietude from the frequent rebellion of his sons, *Richard* and *John*, which were instigated by their mother. This undutiful conduct of his children so preyed upon his mind, that it shortened his days, so that grief put an end to his life, July 6, 1189, at the age of fifty-seven.

Fair *Rosamond*, daughter of Lord Clifford, had a great ascendancy over Henry. He kept her concealed at Woodstock; but, being at length discovered by the Queen, she fell a sacrifice to her jealousy and revenge.

This prince has been greatly admired as an able legislator, and a brave general: his encouragement of trade and manufactures was the foundation of the wealth since enjoyed by the English nation.

London-bridge, which was begun in his reign, was thirty-five years in building. About the same time glass windows were first introduced into England.

Among the cotemporary sovereigns of Henry were *Alexis II.*, Emperor of the East; *Pope Gregory VIII.*; *Louis VII.*, King of France; *Sancho VI.*, King of Navarre; *Alfonso II.*, King of Arragon; *Alfonso VIII.*, King of Castile and Leon; *William I.*, King of Naples; *Fredrick I.*, King of Bohemia, and Emperor of the West; *Alfonso I.*, King of Portugal; *Stephen III.*, King of Hungary; *Casimir II.*, King of Poland; *Canute V.*, King of Denmark; *Charles VII.*, King of Sweden; *Malcolm IV.*, King of Scotland; *Roderick*, King of Ireland, conquered by Henry II., King of England, and the country annexed to the British crown, A. D. 1171.

RICHARD I.

The first act of Richard, on coming to the crown, was to release his mother from her sixteen years confinement. At his coronation, the licentious rabble committed a terrible massacre of the *Jews*.

The *Crusade* against the Infidels in Palestine, being at that time zealously encouraged by the clergy, Richard endeavoured, by every means, just and unjust, to raise money sufficient to fit out a large fleet and army for that expedition, in concert with *Philip of France*.

In *Palestine*, Richard gained great renown for his valour, and was denominated *Cœur-de-Lion*, or *Lion-hearted*. But his affairs were very ill administered at home by those to whom he intrusted the government; and his brother *John* attempted to mount the throne.

Notwithstanding Richard's success in the Holy Land, he soon found his army and his treasures moulder away; and having also

been deserted by the King of France, he made a truce with *Saladin*, and set out for England. Disguised as a pilgrim, he attempted to pass through Germany, but was recognised by the Duke of Austria, who delivered him as a prisoner to his enemy, *Henry VI.*, Emperor of the West.



The place of Richard's confinement was kept a profound secret, until it was accidentally discovered by a wandering minstrel, who played a tune under the windows of the fortress, which Richard repeated on his own harp from within. No sooner did his mother learn the particulars of his imprisonment, than she hastened to get him released, by paying a ransom of 100,000 marks, and giving security for 50,000 more.

On his return to England, he at first determined to make war on France, and to punish his traitorous brother; but, at length, he concluded a truce with the former, and generously pardoned the latter. On the expiration of the truce, the war with France was renewed, but *Richard* received his death-wound in a private dispute with one of his own subjects. He died April 6, 1199, in the tenth year of his reign, and forty-third of his age.

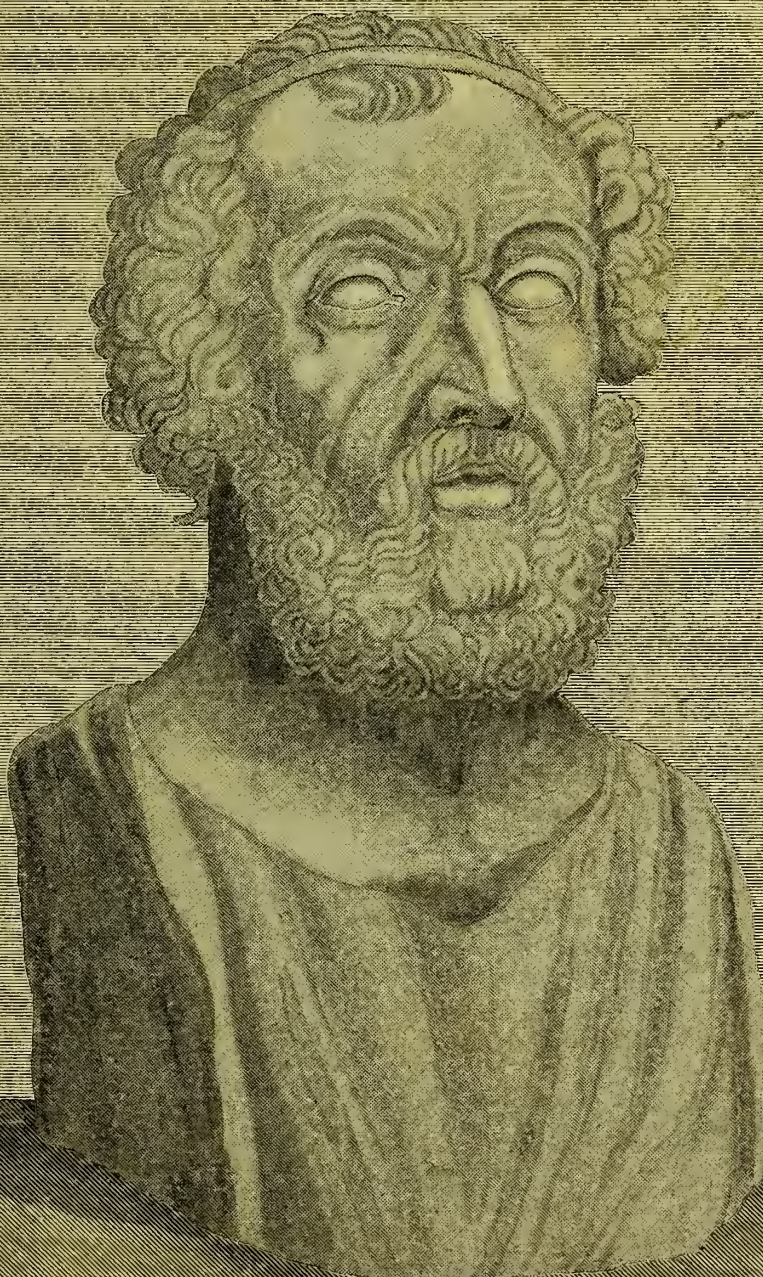
Richard was open, generous, and brave, but little disposed to encourage the arts of peace. In his reign, however, London began to be substantially built with brick, stone, and tile, or slate; and its commercial inhabitants to be classed in corporations, or companies, with a mayor at their head. *Henry Fitz Alwyn* was the first chief magistrate. In this reign an ox sold for three shillings, and a sheep for fourpence. But it is to be observed that the price of labour was no more than twopence per day, which sum at this time is supposed to have been equal to about two shillings and sixpence. In this reign, also, Robin Hood, and his associate, Little John, leaders of a band of robbers, committed their depredations.

JOHN.

On the decease of *Richard*, who died without issue, he was succeeded by his brother *JOHN*; but the rightful heir to the crown was Prince *Arthur*, the eldest son of *Geoffrey*, John's elder brother; to avoid, however, his claim, he put this unhappy Prince to death; and it is generally believed that he did it with his own hands. And from this crime may be dated all his misfortunes.

Choleric and hasty, *John* embroiled himself with his nobles and clergy, but he had not firmness to persist in vigorous measures to repress their power, his violence, therefore, was merely a prelude to abject concessions, extorted from him by fear, and violated as soon as an opportunity offered.

(To be continued)



HOMER



H O M E R.

"Be HOMER's works your study and delight;
Read them by day, and meditate by night;
Thence form your judgment, thence your maxims bring,
And trace the muses upwards to their spring."

HOMER, the most ancient and the most celebrated of all the Greek poets, lived about 900 years * before the birth of Christ. Seven cities have disputed the glory of having given him birth; namely, *Smyrna*, *Rhodes*, *Colophon*, *Talamis*, *Chios*, *Argos*, and *Athens*; but among all the vast diversity of opinions concerning him, the most probable is, that he was a native of *Smyrna*. We have nothing that is certain in relation to the particulars of his life, and, strange to say, this "*Prince of poets*" passed the greater part of his life as a fugitive, neglected, and unknown." His mother's name, it is said, was *Chrithesis*, and his master's, *Phemius*, who taught polite literature and music at *Smyrna*. *Phemius*, charmed with the good conduct of his pupil's mother, *Chrithesis*, married her, and adopted her son.

After their death, Homer inherited their property, and his father-in-law's school, when he obtained universal admiration; but shortly after, becoming acquainted with a captain in the sea service, named *Mentes*, he left his school, and travelled with his friend into foreign parts. He now made the tour of *Asia Minor*, *Greece*, *Egypt*, and other countries, treasuring up immense acquisitions of learning, which he gleaned from the sages, the maxims of the priests at *Delphos*, the sublime writings of *Linus*,† *Orpheus*,‡ *Museus*,§ &c.; for nothing escaped the pene-

tration of this great observer of men and things. In his several voyages he became an excellent geographer, and informed himself of the manners of different nations, and particularly of those of the Greeks, the Phrygians, and the Egyptians. In returning from Spain, he landed at *Ithica*, where he was afflicted with a defluxion in his eyes, when *Mentes* left him with *Mentor*, one of the principal inhabitants of *Ithica*, and returned to *Leucadia*, his native country. At his return, he found Homer cured, on which they re embarked, and after having visited the coast of the Peloponnesus, arrived at *Colophon*, where it is said this great poet lost his sight. This misfortune induced him to return to *Smyrna*, from whence he went to *Cumæ*, where he was received with great joy. He afterwards wandered through several places, and stopped at *Chios*, where he married, and composed his *Odyssey*. Some time after, having added many verses to his poems, in praise of the cities of Greece, especially of *Athens* and *Argos*, he went to *Samos*, where he spent the winter. From *Samos* he went to *Io*, one of the Sporades, with a design of continuing his voyage to *Athens*, but falling ill, he died there. The inhabitants of *Chios* were so struck with the power, beauty, and immortality of Homer's poems, that they generously assigned their author a sufficiency to make the latter part of his days comfortable and happy.

We have two of his poems, namely, the *Iliad* and *Odyssey*, both of which are master-pieces. Nothing was ever comparable to the clearness and majesty of Homer's style, to the sublimity of his thoughts, and to the strength and sweetness of his verses. All his images are striking; his descriptions just and exact: the passions so well exposed, and nature so finely painted, that he gives to every thing motion, life, and action. But he more particularly excels in invention, and in the different characters of his heroes, which are so varied, that they affect us in a most inexpressible manner. The more Homer is read, the more he must be admired.

LYCURGUS, the celebrated legislator, was the first who introduced the works of Homer into Greece, which were

* The Arundelian Marbles fix his era 907 years before Christ, and make him also cotemporary with Hesiod.

† LINUS has the glory of being the first Grecian who cultivated the muses. He was the inventor of rhythmus, melody, and cadence; and his disciples were *Orpheus*, *Thamyris*, *Pamphos*, and *Heracles*. He sang the creation of the world, the origin of things, the majestic course of the sun, moon, and stars, the sublime harmony of all nature, and composed hymns in honour of *Bacchus*. With his plaintive and harmonious voice, he inspired the Greeks with virtue; humanized the ferocity of their manners, gave reverence to their laws, and had the happy talent of making his poetry to be considered as sacred and divine.

‡ ORPHEUS. Never was there in all antiquity a name more celebrated than that of ORPHEUS. There is something magical in the sound; for if we do but mention him, the imagination presents us with a sacred pontiff, a wise legislator, a divine poet, and the first musician in the world. As a pontiff, he instituted the sacred rites of religion; as a legislator, he reformed his countrymen, or rather brought a set of savages to live in society; and as a poet, he was unequalled in harmony, sweetness, and energy. The poets have portrayed him as the minstrel of *Apollo*, clothed in shining robes, sitting on the summit of a hill, with looks of majesty and sweetness, which are directed towards the heavens: his lyre produces the most ravishing transports, while he sings the Immortal Gods, the Creation of the World, and the Origin of Man. All nature seems to listen to this sweet musician: lions, and other beasts of prey, become gentle, obsequious, and submissive; the rivers mount to their source; trees are agitated; rocks are softened, and descend the mountain; while the inexpressible melody of his lyre enchants both men and gods. This is the description of him, as given by the poets:—

Orpheus, in order to impress his doctrines more powerfully on the minds of his wondering auditor, professed himself to be inspired by *Phœbus*, or the power of Divine illumination:—this mixture of truth and fiction ought not, however, to surprise enlightened and well-informed minds. In the first ages of the world, every thing appeared as deified to man; all was mystery, enchantment, phenomena, or enveloped under the veil of allegory, in order to strike and astonish. Those who first made the most simple discovery in astronomy were raised to the dignity of demi-gods; and, consequently, we should consider the Greeks, at this

period, as emerging from darkness, and who began to see the dawn of morning for the first time. *Orpheus* came into Greece when genius was in its infancy; no wonder, then, that with his uncommon knowledge, he appeared as an extraordinary character. The fame of the Egyptian priests for their wisdom and piety induced him to travel into Egypt; where he was initiated into all their mysteries; and from a close and unwearied application to the sages, he enriched his mind with new ideas upon the essence of the gods, upon religion, its rites and ceremonies, as well as divination. On his return to Greece, he inculcated religious sentiments, and introduced an expiation for their crimes. To him they owed their first ideas of astronomy.

§ MUSEUS has been celebrated by antiquity as a theologian, poet, philosopher, and interpreter of the sacred oracles. Like *Linus* and *Orpheus* he undertook the difficult task of reforming his countrymen, and of laying down a theological and philosophical system. *Museus* presided over the Eleusinian mysteries, and consecrated his poetry to the service of the gods. Others say, that he was the priest of *Ceres*, at *Athens*, near which city he recited his verses, in a place which was afterwards called *Museum*. *Virgil* assigns him a place of distinguished eminence in the *Elysium Fields*. The principal works of this poet were his "*Sacred Institutions*," "*The War with the Titans*," and his "*Theogony*," or account of the fabulous deities—a work which shewed a fertile imagination, and a creative genius.

then in detached pieces, and entitled "Rhapsodies." Pisistratus collected them together, and divided the *ILIAD* and *ODYSSEY* each into twenty-four books. *SOLON* made a law that the poems of *Homer* should be sung at all public solemnities, and that children should be taught to recite them from memory. Copies were soon after dispersed over Greece, and Athens had the glory of handing them down to posterity.

Homer, among the Greeks, acquired the glorious appellation,—"*the father of wisdom and virtue.*" *Horace* tells us that this great master instructed mankind in their duties much better than the philosophers.

To sum up the whole, *HOMER* is at once majestic and simple, various, dramatic, and full of incident: highly descriptive and picturesque, yet natural; master of the most commanding strokes of the pathetic, and even dwelling on them when occasion requires; always moral and engaging, though seemingly without design.

The poem of the *ILIAD*, though at first view it might seem a rhapsody of battles, high passions, and characters, is yet a most regular piece; and there is no poem in existence that possesses greater art and judgment. Its time of action is regularly conducted; every part of it is seen connected with another, in regular succession; it begins with the anger of *Achilles*, and ends with the death of *Hector*, when that anger ceased. All the parts rise out of each other in the most surprising and natural gradation; and every action has a manifest tendency either to elucidate or enforce the subject of the poem, exalt the principal character, or promote the design of the whole.

As the *Trojan War* was the most ancient and most important story he could think of, he has accordingly thrown into it all that interest which variety of character, national distinction, and historical truth, joined to the finest poetical embellishments, could possibly produce. But in order more fully to illustrate the genius of *Homer*, we intend giving, in our next, an Analysis of the *Iliad* and *Odyssey*, together with some of his most striking beauties, and a short sketch of his principal characters.

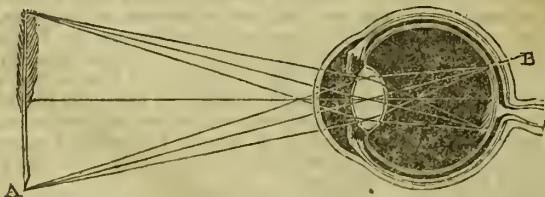
THE FIVE SENSES.

(Continued from p. 54.)

THE SENSE OF SIGHT.—No. III.

6. DIRECTION OF VISIBLE OBJECTS.

THE mind, in perceiving any point *A* of an object, (that of the pen's point, for example,) receives the rays by



which it is made visible at different degrees of obliquity; but notwithstanding the difference of these degrees, the object is seen only in the direction of the central ray *AB*; and this ray is always perpendicular to the retina. Now the surface of the retina being of a spherical form, it follows, that these rays being perpendicular to it, must invariably pass through a point which is the centre of the curve of the retina, and which is therefore called the *centre*

of visible direction. This centre is a fixed point in the vitreous humour, and as it never changes its place, however great may be the rotation of the eye, it is evident that it must be the same with the centre round which the eye rolls when it is in motion. It results from this coincidence of the two centres, that the unvarying stability of the objects at which we look is preserved.

7. CAUSE OF ERECT VISION.

The humours of the eye acting like a convex lens, a picture of the object is painted on the retina in an *inverted* position. To young and uninformed persons this inversion of the image makes the cause of erect vision a subject of much difficulty, and by some of the old philosophers it was considered as one of the mysteries of nature. But the law of visible direction makes the whole a matter of easy comprehension. It will be observed, that the rays of visible direction cross each other at the point or centre of visible direction; those from the lower part of the picture go to the upper part of the object, and those from the upper part of the picture go to the lower part of the object; and thus when the mind would perceive the top of an object, it refers from the bottom of the picture *upwards*, and when it would perceive the bottom of an object, it refers from the top of the picture *downwards*, whereby a true notion of the erectness of objects is obtained (as, indeed, it only can be) by means of an inverted picture.

8. ACCOMMODATION OF THE EYE TO DIFFERENT DISTANCES.

The rays by which vision is performed in reading a book, or paper, make, in falling upon the eye, a much greater angle than those would do which fall upon the eye in looking at a distant landscape; and this difference in the obliquity of the rays is followed by a difference of the degrees in which the two sets of rays are converged to a focus. The rays from the *Guide to Knowledge*, for instance, as they would form a greater angle, would also be converged to a focus sooner than those from the distant landscape; and consequently, if the retina was so situated as to receive the focus of rays from the book, the focus of rays from the distant landscape would be formed beyond it, and would therefore confound the eye with an indistinct image; but if, on the contrary, the retina was so adapted as to receive the focus of rays from the distant landscape, that from the book would not reach it, and would therefore be invisible. To meet these difficulties, the eye possesses a power of adjusting its different parts in such a manner to the distance of the different objects at which it looks, as always to cause the visual rays to converge to a point on the retina. These adjustments consist chiefly in an alteration of the convexity of the cornea, and a movement of the crystalline lens nearer to, or farther from, the pupil, by which the axis of the eye is made longer or shorter, and the degree of convergence greater or less as the occasion may require. These beautiful operations by use become involuntary, although they still continue under the dominion of the will, and can be performed or not at pleasure, as the reader may at this moment try for himself, by letting his eye, as he looks at the printing, relax into a state of repose, when the letters will immediately become indistinguishable, and appear as they do to an aged person. This state of repose is the one natural to the eye, and in which it is adjusted to long sight, a faculty which most old persons possess; for we have observed that they can commonly distinguish all that to the strongest

eye is visible, of a ship in the horizon, while at the same time they are totally unable to read the letters of a book.

9. CAUSE OF SINGLE VISION WITH TWO EYES.

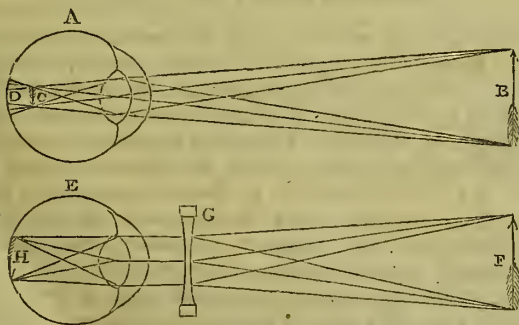
Much time has been wasted, and great ignorance exhibited, in the discussion of this subject; but as we now live in an age when an appeal to facts alone is allowed in the settlement of a proposition, it becomes one of very easy solution. By the aid of the straight muscles of the eye, we can direct the axis of each eye, so that when prolonged they may meet in any desired points beyond the distance of about six inches. Let this desired point be a lighted lamp at the end of a dark gallery, and let us direct our eyes to the lamp,—a picture of it would then be formed on the retina of each eye; but because the lines of visible direction from any two corresponding points of the pictures meet on the one real point of the object, the two pictured points must of necessity be seen as one point; and the collection of points forming the picture of the lamp in one eye, will exactly coincide with the collection of points forming the picture in the other eye.

10. CAUSE OF LONG-SIGHTEDNESS.

Old persons are usually long-sighted: that is, their eyes lose the power of adjusting themselves to short distances. This afflicting disability usually arises from a flattening of the cornea, and from a relaxation in the structure of the crystalline lens, by which its power of acute refraction is lessened.

11. CAUSE OF SHORT-SIGHTEDNESS.

Short-sightedness arises from causes exactly the reverse of those which occasion long-sightedness, namely, too great a convexity of the cornea, and an excessive density in the structure of the crystalline lens, by both of which the visual rays from near objects are converged to a focus before they reach the retina. Both these distressing maladies have however been kindly obviated by the direction of providence in the invention of spectacles, which were first generally used in Holland in the fourteenth century. By these simple and invaluable instruments, long-sightedness is corrected by the use of a convex lens, which converges the spreading rays to a focus on the retina; and short-sightedness, in like manner, by a concave lens, which diverges the rays, and prevents them from coalescing in a focus, before they reach the retina.



A, a short-sighted eye; B, an arrow which it attempts to perceive, but is prevented by the convergenc of the visual rays to foci, at C, before they reach the retina at D.

E, the same eye, similarly situated, showing how, by the intervention of a concave lens, G, the rays are diverged, and the image of the arrow, F, accurately converged to the retina at H.

(To be continued.)

AFRICA.

(Continued from page 101.)

BIRDS.

THERE have been calculated 642 species of birds, of which nearly 500 are peculiar to Africa. The Guinea fowl, of which there are three species, is a native. The ostrich, the giant of birds, the elephant of the winged tribe, as regards its size, rising from six to eight feet in height, and weighing about eighty pounds, abounds in the sandy deserts, and is remarkable for swiftness. They flock together in large troops, at a distance resembling an army of soldiers, and in swiftness exceed the fleetest horse. The eggs of the ostrich frequently exceed three pounds in weight, and these the birds deposit in the sand, to be hatched by the heat of the sun. Of the thirty or forty eggs that this bird lays in a year, only about a fourth part of them produce any young. Ostriches are seldom brought alive into Europe. There is in South America a bird greatly resembling the African ostrich, called the *Touyou*, but much smaller, and has three toes instead of two; in its manner and disposition it resembles the ostrich.

INSECTS.

Africa swarms with the most beautiful insects; the migratory locust is the most formidable, marching forth in myriads, and spreading its ravages over the most fertile provinces. The number of these insects is so great that they darken the air; and they have been known to cover an area of 2000 square miles, devouring all the grass and corn before them, and hitherto no means have been able to prevent their progress. Ants are also very numerous, building nests each from ten to twenty feet in height. The ant is greatly celebrated both for its industry and economy. The sight of ants is really very instructive; they are a little people, animated like the bees, in a republic governed by its own laws and politics. They have a kind of oblong city, divided into various streets that terminate at different magazines. The scorpion is a native. The opinions of authors are very different as to the sting of this creature, some asserting that there is an opening in it, through which a poisonous liquor is thrown into the wound made by it, as is the case in the tooth of the viper, &c.; and others affirming that there is no such opening; the former opinion, however, is now proved to be correct. Of spiders there are two kinds, the tarantula, which abounds in Barbary, and the tendaraman, a native of Morocco, whose bite is fatal. The spider affords to the sagacious observer, as well without as with the assistance of glasses, many extremely curious particulars. As the fly, which is the spider's natural prey, is an animal extremely cautious and nimble, and usually comes from above, it was necessary the spider should be furnished with a quick sight, and an ability of looking upwards, forwards, and sideways at the same time; and the microscope shews that the number, structure, and disposition of its eyes, are wonderfully adapted to the serving all these purposes. Most spiders have eight eyes; in some we find ten, and in others only six or four; The Guinea worm is frequently met with; and the famous nautilus of the ancients is found in the African seas.

REPTILES.

Africa is full of reptiles of every description. Here are serpents of every kind and in great numbers; of which

the Boa Constrictor is one of the most terrible, both from its prodigious size and habits. Crocodiles abound in the large rivers; but, happily for the people, here is a species of tortoise that devours the young crocodiles in great numbers the moment they are hatched. This animal is the largest of the lizard kind, growing to twenty-five feet in length, and about the thickness of a man's body. It is a native of the torrid zone, frequenting rivers, where it lies concealed among the reeds or rushes, till it finds an opportunity to seize men or other animals, which it drags into the water, always taking this method of drowning them first, that it may afterwards devour them without resistance; its general food, however, is fish. The Africans eat its flesh, which is white, and of a perfumed flavour. The Cameleon is a native of Egypt and Barbary. This animal is also a species of lizard, with a short round tail, five toes on each foot, two or three of which adhere together. All animals of this kind are amphibious,* with a body of an oblong shape and rounded, the legs four, and the hinder part terminated with a tapering tail.

PLANTS.

The vegetable kingdom of Africa opens to the botanist a wide field, as yet unknown, containing a beautiful variety of all those plants that charm the eye and adorn the fair face of nature. The Baobab, or Calabash tree, exhibits the most extraordinary dimensions. Its height, though commonly reaching sixty or seventy feet, bears no proportion to the trunk. Adamson is said to have found one in the island of Senegal which measured seventy-four feet in circumference; the branches of which, spreading in all directions, were as large as common trees; thus constituting of itself a species of forest. The Shea, or vegetable butter tree, is curious, and important to the natives; whilst on the borders of the desert is found the celebrated Lotus tree, the fruit of which (a farinaceous† berry) when prepared, becomes very nutritious, and equal in taste to the sweetest gingerbread. The mangrove, which grows on the banks of rivers, strikes root in its bed, forming a platform above the water, together with a beautiful arcade. The Flora of Africa is not yet half explored; although it has already added to botany many new and interesting species, a great harvest yet remains in the interior.

MINERALS.

The mineral kingdom of Africa also remains, in a great measure, as yet unexplored. The chief of the metals hitherto found is gold, which is met with in every part of the central mountains and in the beds of rivers. That which is brought to Egypt, Morocco, Fez, Algiers, Tripoli, and Tunis, is annually procured at Bambouk, a little to the north-west of the Kong mountains. Pure gold is said to be found in veins in the district opposite to the island of Madagascar. Mines of silver are found in the territory of Tunis; iron abounds in Morocco and other places. Copper is found in the western Atlas; also in the adjacent region about Abyssinia, and in Mozambique and Congo. Africa also produces a variety of precious stones, as the emerald, topaz, agate, &c.

INHABITANTS.

AFRICA is considered to have been first peopled by HAM, and his immediate descendants. The present inhabitants

* AMPHIBIOUS, that which can live both upon the earth and in the water, as if either element was natural to it. The beaver, frog, otter, tortoise, crocodile, &c. are of this species.

† FARINACEOUS, nearly resembling meal.

of this peninsula are commonly divided into Moors and Negroes. The former are supposed to be the descendants of the ancient Arabs, blended with numerous other nations who have settled in Africa. These have, for the most part, occupied the habitable parts, and driven the Negroes into the southern regions, or beyond the great rivers. The Moors are piratical, treacherous, cruel, unsettled; and roaming, like their ancestors, from place to place, and being superstitious Mahometans, are generally very hostile to Europeans. Compared with the Turks, the Moors are a very inferior race. At present the Moors chiefly inhabit the cities of Barbary, Morocco, and Fez. Their towns are gloomy, having narrow streets. Their houses have, for the most part, walls of earth, and are destitute of windows; and even their internal splendour is barbarous. The Arabians Proper chiefly occupy the country districts, residing in tents, forming a sort of moveable towns and villages. Jews exist in Barbary in great numbers, but from their exhibiting their peculiarities and political distinctions, they are held in great contempt. The mountains are occupied by independent tribes. The Negroes are gentle, hospitable, and affectionate; but improvident, thievish, and very superstitious. They are divided into two classes, Foulahs and Mandingoes. Their principal kingdom is that behind Sierra Leone. The inhabitants of Egypt are chiefly foreigners. The Copts are of a yellow dusky complexion; the females are elegant and interesting. The Copts are said to be the only race descended from the original natives.

AGRICULTURE.

Agriculture and the Arts, amongst the natives of Africa, are in a very imperfect state. In none, with the exception of Whidah, is landed property at all recognized, nor have they the means of applying the advantages which have resulted from European skill, or even of European instruments, to the cultivation of the earth. The hoe is the only instrument with which the ground is tilled; and Park mentions it as a surprising instance, no where else seen in Africa, that for a mile round Kirwanny the country was entirely cleared of wood. The labour of cultivating the earth is common to a whole village during two short seasons, seed time and harvest, when all the inhabitants go out, headed by their chief, while their musicians attend and cheer the toil by the conjoined harmony of their different voices and instruments.

MANUFACTURES AND COMMERCE.

Manufactures are in a still less advanced state, the most extensive department of which is cotton cloths, and this is mostly carried on by each family for its own use. Dressing leather, alone of all African manufactures, forms an article of export to Europe. Meantime, COMMERCE, except on the coasts of the Mediterranean and Red Sea, has never been in a flourishing state. Inland commerce, however, has been more extensive, and has overcome the mightiest obstacles ever presented to mutual communication. Deserts full of shifting sands, where wide desolation seemed fatal to every thing endued with life, are traversed by large and numerous caravans. In these the camel, called "*the ship of the desert*," is almost exclusively employed; and by his means the commercial Arabs have penetrated even to the depths of interior Africa. The chief article of commerce from northern Africa to the interior is salt, where it is considered as an article of great luxury. It is sold in its rocky

state, in slabs of twenty-four feet long, each worth from 2*l.* to 2*l.* 10*s.*, and is exchanged by the caravans for the gold of Nigritia.

(To be continued.)

OF THE BENEDICTINES.

THE BENEDICTINES, in Church History, are an order of monks who profess to follow the rules of St. BENEDICT. They wear a loose black gown, with large wide sleeves, and a cowl on their heads, ending in a point behind. In the canon law, they are styled *Blackfriars*, from the colour of their habit. The rules of St. Benedict, as observed by the English monks, before the dissolution of the monasteries, were these:—they were obliged to perform their devotions seven times in twenty-four hours, the whole circle of which devotions had a respect to the passion and death of Christ; they were obliged always to go two and two together; every day in Lent, they were compelled to fast till six in the evening, and abated of their usual time of sleeping and eating; in fact, they were not allowed to practise any voluntary austerity, without leave of their superior; they never conversed in their refectory at meals, but were obliged to attend to the reading of the Scriptures. They all slept in the same dormitory, but not two in a bed—they lay in their clothes; for small faults they were shut from meals; for greater, they were debarred of religious commerce, and excluded from the chapel; and as to incorrigible offenders, they were excluded from the monasteries. Every monk had two coats, two cowls, a knife, a needle, and a handkerchief; and the furniture of their bed was a mat, a blanket, a rug, and a pillow.

MIRROR OF THE MONTH.

APRIL.

THE name of this month is derived from the Latin word, *Aperio*, to open or disclose, in the active; or from *Aperior*, opened, in the passive sense of the verb. The term applies to the opening of the year, or to the unfolding of the buds and flowers, by the influence of the genial warmth and moisture of spring. The alternate sunshine and showers of this month have caused it to be compared, by the poets, to "A fair virgin smiling through her tears." The reason why our months, and many of our festivals, are to be ascribed to Roman designation and institutions, is the early footing which that people obtained in Britain, and the sanction that their customs received, in consequence of the higher orders of British youths being sent to Rome for Education;* and a fondness for Roman manners was revived by the promulgation and ready reception of Christianity in this island; for which we are beholden to the fathers of the Roman Church,† who did not fail to initiate their new converts in all the superstitions and ceremonies of their canonical ordinances.

Among the ancient Romans, on April 19th, was kept (chiefly by females) the feast of *Ceres*, on which occasion, as Livy relates, in his account of the defeat at *Canna*, no person that mourned was allowed to take a share; consequently, so universal was the grief in the city, for that disastrous affair, that the feast of *Ceres* was entirely omitted, the whole population being in mourning.

On the 21st, the shepherds, and other rural inhabitants of Italy, celebrated the feast of *Pales*, the goddess of their occupations, to whom they offered prayers, and performed a tedious course of

superstitions; but, according to *Ovid*, this festival was concluded with revelry, and disorderly mirth; for they kept up their feasting all night, till, being excited by liquor, they danced over the fires which they had made in the field, with heaps of stubble.

The same day was called *Urbis Natalis*, the birth or foundation of the city, which was undertaken by Romulus, A.M. 3948, about 750 years before the birth of Christ; its antiquity, therefore, to the present time is about 2584 years. Romulus reigned thirty-seven years, during which *Carops* was *Archon* of Athens, that is, the chief, or prince. He was the tenth person raised to that exalted station. On the 25th was the feast of *Robigus*, who, they supposed, took care to keep off the mildew and blight from corn and fruit. On the 29th was the feast of *Flora*, the goddess of flowers, in which public sports were practised.

In our climate the progress of vegetation is general and rapid during the month of April; the blossoms of trees present to the eye a most pleasing spectacle, particularly in those counties where there are numerous orchards. The blackthorn, in our hedges, first puts forth its flowers, and is speedily followed by the ash, the box, the pear-tree, the apricot, the peach, the nectarine, the plum, and the wild and garden cherry-trees; the hawthorn, the sycamore, the apple-tree, the gooseberry, and the currant-trees. The elm and the larch in this month spread out their leaves to the full. That beautiful and stately tree, the horse-chestnut, displays its fine green leaves, and its handsome pyramidal white and red flower. Many, indeed, and lovely, are the flowers that in gay profusion adorn this charming season.

Now from the town,
Buried in smoke, and sleep, and noisome damps,
Oft let me wander o'er the dewy fields,
Where freshness breathes, and dash the trembling drop
From the bent bush, as through the verdant maze
Of sweet-brier hedges I pursue my walk;
Or taste the smell of dairy; or ascend
Some eminence, *Augusta*, in thy plains,†
And see the country, far-diffused around,
One boundless bush, one white empurpled shower
Of mingled blossoms.

Among the variety of flowers that trim out our gardens and fields, in the most splendid and enchanting array, we have the chequered daffodil, the primrose, the cowslip, the lady-smock, the hare-bell, and the yellow star of Bethlehem, in the woods; the vernal squill, among maritime rocks, and the wood sorrel. [In our gardens, the jonquil, anemone, ranunculus, polyanthus, and crown-imperial, bloom on the ramparts and borders, as if striving to compose another Eden on the earth, which now pour forth, in all the freshness of life and activity, the insects and animals that laid torpid during the winter, while warmed by the solar ray; swarms of beings issue into existence, sporting in the sun-beams, and living their little time among the tribes of ANIMATED NATURE. The spiders, indefatigable weavers, now spread their webs on walls, palings, and hedges; the shell snails come out to drink the dew, and moisten themselves in the softly descending showers; the death-watch, innocent cause of alarm to superstitious persons, beats its call to its kindred species; the stinging fly, if the weather be warm, ranges about, and if offended by man or beast, will make him feel the dart of its indignation; the wood ant begins to construct its large conical nest, and the red ant also commences her provident labours; these little industrious insects are so disgusted at indolence, that if they find a lazy looby, basking in the sunshine, on one of their hills, the whole community of them will not only shew him an example of activity, but be he ever so dull or slovenly, they will infallibly make him smart.]

† *Augusta Trinobantum* was the original name given by the Romans to London; the origin of the present name of our metropolis is not exactly determined.

* Vide History of England—Ancient Britons, &c.

† *Ibid.* reign of Ethelwald, the Saxon king of Kent.

From their wintry cells,
The summer's genial warmth impels
The busy ants, a countless train,
That with sagacious scent explore,
Where, provident for winter's store,
The careful rustic hides his treasured grain;
Then issues forth the sable band,
And seizing on the secret prize,
From mouth to mouth, from hand to hand,
His busy task, each faithful *emmet* plies.

The mole cricket is the most remarkable of the insect species seen about this time. The black slug and the dragon fly appear towards the end of the month, and the cabbage butterfly is to be seen.

River fish leave their winter retreats; when allured by the treacherous bait, and unaware of the concealed hook within, they fall a prey to the patient and wily angler, who artfully secures them.

Migratory birds of the summer begin to return to our regions: the quick-winged swallow, and the melodious nightingale visit us about the end of this month; this songster of the grove seems to seek seclusion, and while he enchants our ears he eludes our eyes.

That beautiful little bird, the wryneck, comes a little before the cuckoo, who leaves us again before the summer has advanced; hence the rustics, in our northern countries, have a rude proverbial couplet, thus—

"The first cock of lay
Frightens the cuckoo away."

The ring ousel, the red start, the yellow wren, the swift, the white throat, the small lark, and the willow wren, are busy in preparing for incubation; and the ravenous kite hovers in the air, waiting to pounce upon her victims.

This is the season for planting and sowing the sprouts and seeds of culinary vegetables; but the descriptions of them will, with more propriety than in this month, be given as they grow to maturity. The farmer may now begin to weed and hoe, to destroy thistles, charlock, and to strengthen young plants; the increase of which will amply reward his industry.

HISTORICAL & BIOGRAPHICAL MEMORANDA FOR APRIL.

April 1st.—This happens to be **EASTER TUESDAY**, a day on which various sports are kept up in some parts of England; many of them either very childish or very cruel; of the former kind is the *trundling* of eggs, which are boiled in various colours of dye, and fancifully stained. This *trundling* consists in rolling them against each other on the grass, when he, whose egg is hardest, is benefited by claiming all he can break. Of the cruel sports, that of throwing at cocks is one of the most common, the fowl being tied to a stake, for that savage purpose; but all these gothic customs are expiring in the diffusion of knowledge.

The custom of making fools on this day is still continued with unabated fondness, and which is too well known to need a description. The taking of the owl, as wittily described by *Tim Bobbin*, the Rochdale school-master, in his Lancashire dialect, is one of the most vexatious tricks practised on a simple clown upon this day that can be conceived.

April 2d, in 1798, the first symptoms of the Irish rebellion manifested themselves in the neighbourhood of Cork, where a party of the insurgents was defeated by a military detachment.

On this day, in 1801, *Copenhagen* surrendered to the British under the command of Sir Hyde Parker and Lord Nelson. The loss in such a battle as this was necessarily very great; the total number of killed and wounded having amounted to 943. The carnage on board the Danish ships was also excessive, being calculated by the commander-in-chief, *Alfred Fischer*, at 1800 souls.

April 3d, *Richard*, surnamed *de Wiche*, from a place in Worcestershire where he was born, was educated at Oxford and Paris; his memory is preserved on account of his remarkable integrity, his learning, and diligence in preaching.

On this day, in 1616, died that great master of the histrionic art, *Shakspeare*. It is rather singular that, while correct accounts of

most of *Shakspeare's* poetical contemporaries are handed down to us, so little should be known, for a certainty, respecting this mighty master of the histrionic art. The various commentators on the works of our bard have spared no pains in making the necessary researches; yet their industry has been but ill requited, as little more is known of this wonderful man, than his being born at *Stratford-on-Avon*, in April, 1564, where he was reared at the Free School; and, when young, married the daughter of a Mr. Hathaway, a substantial yeoman in the neighbourhood of the town. From this period the annals of *Shakspeare* are, for the most part, conjectural; as he is by some represented as coming to London in a state of indigence, having been compelled to fly his native place in consequence of being concerned, with other young men, in a frolic, when a deer was stolen from one Sir Thomas Lacy, who prosecuted all the depredators he could secure. Others conceive that the father of our poet, who was a wool-stapler of repute, did not permit his son to visit the metropolis without the means of support. It appears, however, certain, that the close of our dramatist's life was spent in retirement and ease with his friends at his native town, whither he repaired, after acquiring fame and fortune in the capital. *Shakspeare* died in the fifty-third year of his age, and was interred in the north side of the chancel, in the great church at *Stratford*, where his monumental effigies appear against the wall, representing his hands reposing on a cushion. To portray the character of this great prodigy of nature is beyond our power; and we shall therefore content ourselves by saying, that in the delineation of all the passions incidental to the human mind, no writer, ancient or modern, has surpassed him; and that, to use his own emphatic words, "*We ne'er shall look upon his like again.*"

April 4th, **SAINT AMBROSE** was born about the year 340. He was son of the prætorian præfect of Gaul, and received his education in his father's palace. He composed the hymn of *Te Deum*, so well known in our Church, and he converted and baptized St. Augustine.

On this day, in 1790, *John Frith*, a half-pay lieutenant, was tried at the Old Bailey Sessions, for throwing a stone at His Majesty's coach, (George III.), when, being pronounced a lunatic, he was sent to a proper place of confinement.

On this day, in 1789, the crew of the ship, *Bounty*, which had been despatched to the Society Islands to bring the bread fruit trees to the West India Islands, mutinied and forced Captain Bligh (their commander), his officers, and the men who did not join the confederacy, into an open boat, in which they were forty-six days, suffering the greatest hardships, before they reached a Dutch settlement, having been allowed by the mutineers but a small quantity of provision. A ship was sent out from England in search of the mutineers, and some of them being found were brought home and executed.

April 5th, in 1634, *Oliver Cromwell* concluded a treaty with the Dutch, in which they engaged to pay £300,000 sterling for the damage they had done to the English, thirty years before, at *Amboyna*; they also consented to abandon Charles II. and bound themselves not to receive any persons who should be banished from England. Their ships also paid the like honours to the flag of the British commonwealth, as they had done to it under the monarchy.

April 6th, **LOW SUNDAY**, the first after Easter Day, on which part of the service of that grand festival was repeated, but in a lower or less degree, which occasioned its name.

On this day, in 1619, *Archbishop Abbot* founded a hospital at Guilford, the second centenary of which was celebrated on this day, 1819; Lord Grantham (the high steward) presiding, supported by the mayor and alderman, and attended by the tenants of the hospital farms, when the venerable inmates of the establishment were plentifully regaled with good English fare.

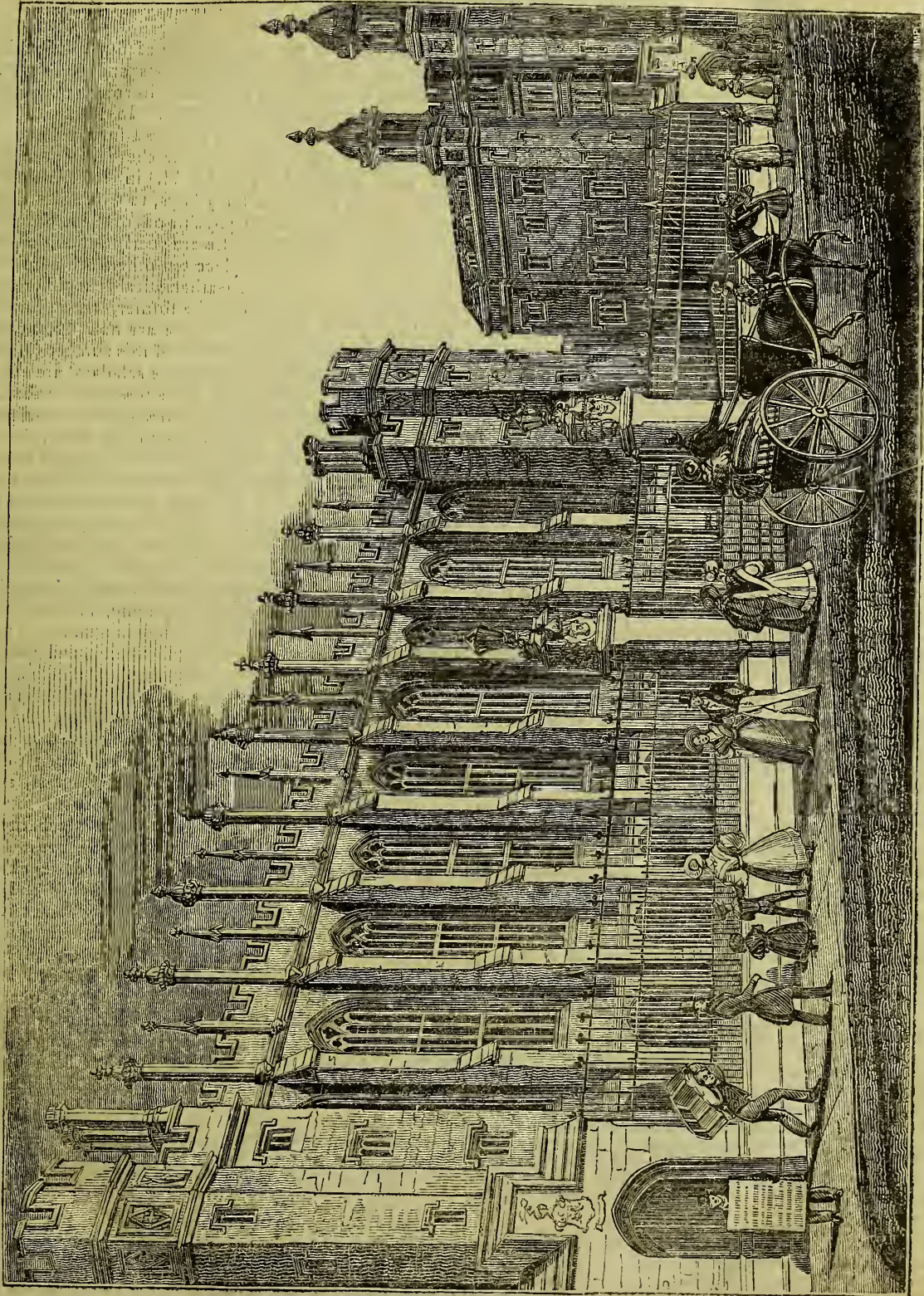
On this day, in 1812, *Badajos* surrendered to the forces under the command of Lord Wellington, whose plan for the attack was conceived with great skill, and executed with equal bravery and success. Among the most celebrated of the generals who were engaged in this enterprise, was Lieutenant-General Sir Thomas Picton; a braver man, and a better soldier never lived; and through whose bravery it may be considered this strong fortress surrendered. At the commencement of the siege, the garrison consisted of 5,000 men, 1,200 of whom were killed or wounded during the operations, besides those who fell in the assault of the place. The total loss of the British and Portuguese army, during the siege, was estimated at 72 officers; and 933 rank and file killed, 306 officers, and 3,451 rank and file wounded, and 63 missing.

GUIDE TO KNOWLEDGE.

No. CVIII.]

SATURDAY, APRIL 12, 1834.

PRICE
ONE PENNY.



CHRIST'S HOSPITAL.

CHRIST'S HOSPITAL.

THIS noble and truly magnificent institution, which stands on the north side of Newgate-street, has lately received great and splendid improvements, particularly by a new and spacious entrance,* and the enlargement of the opening to the front from Newgate-street, which gives a more extensive and conspicuous view of that superb building than its former confined and secluded situation afforded; and we may reckon this as one of the many and important improvements that have taken place, or are projected and going forward in the city of London. Formerly a stranger might have passed by without even a glimpse of this royal foundation, or of the statue of that young monarch, EDWARD VI., which stands in the front, and at whose instance the original structure was erected, and its benevolent purposes commenced. The history of this hospital, or, as it is also called, the "*Blue Coat School*," from the dress of the children it maintains and educates, emanates from the pious feelings of the prince who promoted it, and the vivid representations of the distressed condition of the poor by RIDLEY, then bishop of London. On the site, now occupied by Christ's Hospital, anciently stood the house of the *Grey Friars*, or Franciscans, founded about 1225, and part of the present edifice was the cloister of the conventual† buildings, but being suppressed, and its revenues seized by Henry VIII. that monarch, a little while previous to his death, granted it to the city of London for the relief of the poor; this object was however, neglected, until his successor, moved by the pathetic preaching of Bishop Ridley, took the matter into consideration, and, after a private conference with the prelate, sent a letter to the Lord Mayor, inviting his assistance for relieving the poor, and soon afterwards a regular system for that design was formed, of which this hospital made a principal part. The poor were distinguished into classes; St. Thomas's Hospital was set apart for the diseased;‡ Bridewell was intended to receive, and, if possible, to correct, the idle and profligate; and Christ's Hospital to maintain the young and helpless; and the king incorporated the governors of those several hospitals by the title of the "Mayor, Commonalty, and Citizens of London, governors of the possessions, revenues, and goods of the hospitals of Edward VI. king of England." Edward also granted to Christ's

Hospital lands to the annual value of 600*l.* belonging to the Savoy, and added other donations and privileges, the last being his license to hold lands in common mortmain* to the yearly value of 4000 marks. In 1552 the House of the Grey Friars was first prepared for the reception of the children; and in November in the same year nearly 400 were admitted. Charles II. in 1674, founded a mathematical school for forty boys, to which he liberally granted 1000*l.* per annum, payable out of the exchequer for seven years; of these boys, ten are yearly apprenticed to the sea service, and in their place ten others are admitted on the foundation. Another mathematical school for thirty-seven boys, now united with the former, was subsequently founded by Mr. Travers. There are now 1200 children on the foundation, and about 500 of this number (including all the younger boys, and the female scholars) are educated at an excellent establishment in the town of Hertford. All the boys wear the same kind of dress, which consists of a dark blue cloth coat made close to the body, but with loose skirts, reaching almost to the feet, yellow breeches, yellow worsted stockings, and a round small black worsted cap, too small to cover the head, and is therefore generally taken in the hand. Their food is plain and wholesome, the dormitories† are spacious, and uniformly kept in a perfect cleanly state.

The education of the boys at this hospital consists of *reading, writing, arithmetic, geography, history, navigation, Latin, and Greek*. One scholar is sent every year to Cambridge, to be educated for the church, and another in every seven years to the university of Oxford. The allowance paid to each of them during the first seven years is sixty pounds per annum.‡ The buildings of Christ's Hospital are very extensive, and are composed of various irregular parts: the south front, now laid open to Newgate-street, is ornamented with Doric pilasters, and, as before mentioned, with the statue of the royal founder.§ The great hall was a spacious room in which the boys took their meals; it was built after the great fire in London, at the sole charge of Sir John Frederic, alderman of London, and cost 5,000*l.* At the upper end was a very large picture by Verrio, representing James II. surrounded by his courtiers, receiving the president, governors, and children of the hospital. In this picture are half lengths as portraits of Edward VI. and Charles II. and another picture represents Edward VI. delivering the charter of the Hospital to the lord mayor and aldermen, who appear in their civic robes, and kneeling; near the king is Bishop Ridley. A new and commodious hall has been built by

* Before the present opening into Newgate Street, the entrance was through *Christ Church Passage* (which still remains), a narrow opening, leading out of the north side of the street, from the corners of Nos. 91 and 92 in that street. This passage leads into the ancient cloister of the priory, which is now used as a burial place for the Hospital, or School, and as a play-ground for the children in wet weather, and also as a thoroughfare to *St. Bartholomew's Hospital* and to *Little Britain*, across the yard, where the grammar-school and dwelling-house of the treasurer, and some of the principal offices, are situate. The front of the cloister may be seen up this passage; but no part of the Hospital could be seen in Newgate Street previously to the present opening, as represented by the Engraving at the head of this article.

† CONVENTUAL, belonging to a convent.

‡ The five royal Hospitals which ornament and honour this great metropolis, are *Christ's Hospital*, *St. Bartholomew's*, the *Bethlem*, *Bridewell*, and *St. Thomas's*; the last of which is in the borough of Southwark; and Bethlem is now removed to St. George's Fields, in the county of Surrey.

* MORTMAIN, a term in Law, such a state of possession as makes it unalienable, and therefore said to be in *dead hand* (so called from the two French words—*morte* and *main*), because it cannot be restored to the donor, or to any common or temporal use: the word is generally applied to such lands as are given to any religious house, corporation, &c.

† Sleeping rooms.

‡ When Camden wrote his *Britannia*, this School maintained 600 orphan boys, and 1,240 poor, on alms.

§ EDWARD VI. was the only son of Henry VIII. and Jane Seymour. He was born October 12th, 1537, and ascended the throne at nine years of age. He died in 1553, in the 16th year of his age, and the seventh of his reign.

the governors, from a design of the late John Shaw, Esq. architect, whose recent sudden death is deservedly lamented. The late duke of York laid the first stone of this erection in April 1825. It is one of the noblest buildings in the metropolis; the architecture is of that description which is usually called the Tudor-style. In the spacious apartments where the governors meet, called the court room, are portraits of Edward VI. by Holbein, and of the chief benefactors to the Hospital. In another room, the interior of which is entirely faced with stone, are kept the records, deeds, and other writings of the hospital; one of the books is the early record of the hospital; it contains an anthem sung by the first children, very beautifully illuminated. The permanent revenues of this royal hospital are considerable, arising principally from royal and private donations, in houses and lands, and by a grant from the city.

The expenditure in this institution is very great, being about 30,000*l.* per annum. The governors are unlimited in their number, being usually benefactors to the institution, or persons of considerable importance, associated with the lord mayor and aldermen, who are governors by the charter: a donation of 400*l.* also qualifies a person to be a governor. The governors have been made trustees to other extensive charities, by their several founders; and among them is one of 10*l.* a year each for life to four hundred blind men.

The greater part of the old buildings being in a state of decay, they have been lately rebuilt by the governors; the additions being the mathematical and grammar schools, and the new hall, spacious enough to accommodate 800 scholars: it is 157 feet in length, by 52 in breadth, and 47 in height. At the eastern end of this room is an organ, which is used to lead the boys in their hymns, and at the western end is a gallery for visitors. A pulpit is placed against the north wall for the officiating minister to read prayers and pronounce exhortations. The walls are decorated by pictures already described, illustrative of the origin and progress of the institution. Tickets may be obtained from the governors to be admitted to this Hall, and the scene therein is exceedingly interesting. It was first opened for use on the 19th of May, 1829. The mathematical and grammar schools are in one building. A statue of Charles II. is placed at the eastern wing: these schools were opened at Easter, 1832. The expense of the Hall, Schools, and Wards, was about 80,000*l.* No person can behold this structure, and reflect upon the benevolent purposes for which it was instituted, without feeling gratitude to the memory of that young and pious prince, Edward VI., who was taken to a better life before he had time to see the effects of his liberality.

This institution is conducted in regular departments, of which the following are the principal: the *president* has the power of assembling a general court; and in his absence, the committee of *almoners*, who seem to hold the superintendence of the whole institution. The *treasurer's* accounts are inspected by the *auditors* at pleasure; they are made up in December, and delivered before the 10th of February. He has a receiver to assist him, who renders to him a weekly account. The treasurer and two almoners order all the necessaries for the children. A governor is appointed auditor, to inspect and report the accounts. A physician is appointed by a general court. A surgeon attends at the admission of children, and examines whether they have any defect, complaint, or infectious disorder: afterwards, he visits the hospital

daily. The physician and surgeon do not receive any other pay than their fixed salaries. The apothecary resides in the apartments appropriated for him. His practice is limited to the hospital; and he is not absent without permission of the almoner.* The clerk is also a resident. He makes correct entries of all the minutes of meetings, which he attends; and keeps a register of the children admitted, &c; of all binding of apprentices; values and views of the estates and property, &c. The receiver attends daily at the counting-house, to receive and pay. To this establishment is attached the school at Hertford, as before observed. The building at Hertford is situated at the east end of the town, forming three sides of a quadrangle, and contains sufficient accommodation for upwards of 500 children. One portion of this building is appropriated for very young boys, and the other for girls. In closing this article, we may observe how wonderfully the purposes of this establishment are changed, on account of its high character for instruction and great patronage; the children were at first those of the poor only, but now, persons even of affluence are desirous of getting their children to be brought up and educated in this excellent seminary and hospital foundation.

SPRING.

Of all the seasons, Spring is most fraught with sensations the most delightful and unalloyed. The pleasure arising from its approach, progress, and completion, is supreme, yet indescribable. Its indications are doubly grateful to the sensitive heart, because they are placed in contrast to the unpleasant associations formed in the mind when contemplating the discomfort of the preceding season.

The dreariness and gloom of the wintry month—the sterility and inactivity of nature—the inclemency of the atmosphere, combine to create feelings of privation and discontent: the enjoyment of domestic comforts does not satisfy the active disposition which pants for the pleasure of seasonable exercise, and the privilege of roaming among the beauties of nature.

These circumstances and feelings engender in the human breast an ardent desire for the approach of Spring, when we may fearlessly participate in the privileges of the rest of animal kind; and the appearance of this interesting season is therefore hailed with delight proportionate to its welcome.

In the early part of this season, the superabundant moisture which Winter has left upon the earth is dried up by the fierce winds of March; and although at first the sharp east winds of that month often prevent the flowers, which they have dried, from blowing, yet the refreshing showers and more genial temperature of April materially assist vegetation, and clothe the earth with freshness and beauty.

All nature rejoices at the return of Spring, because it is the harbinger and the cause of a general revivifying of her animal and vegetable components. The earth is relieved of its oppressive load of snows and saturating vapours—its generative powers are refreshed and invigorated—its operations recommence with energy—and

* ALMONER, an officer appointed to distribute alms to the poor. The *lord almoner*, or *lord high almoner of England*, is usually a bishop, who has the forfeiture of all *deodands* and the goods of *felos de se*, which he is to distribute among the poor.

its inhabitants, of every species and denomination, joyously return to activity and seasonable exertion.

A modern fair authoress beautifully observes, that "the young and joyous spirit of Spring sheds its sweet influence upon every thing; the streams sparkle and ripple in the noon-day sun, and the birds carol tipseily their merriest ditties. It is surely the loveliest season of the year." How delightfully has the fair writer expressed the exhilarating joy of nature on the return of her most welcome season!

In the spring time (on the 28th of April, and five following days) the ancient Romans celebrated certain festivities, which they called *LUDI FLORALES*, or the *FLORAL GAMES*. These games were annually held in honour of *Flora*, the fabulous goddess of flowers and of vegetation. At their celebration, the Romans prayed to the goddess for beneficent influences on the flowers, trees, grass, and other products of the earth, during the year. It was also customary among the Greeks to invoke festivity at the approach of Spring, accompanied with many ceremonies.

All nations have, indeed, been accustomed to hail the appearance of Spring with intense satisfaction and delight. since it is, in fact, the natural commencement of the year (although astronomers have erroneously placed it as the third month), and the cheering restorer of Nature's beauty after the devastation of the wintry storms. Among others, the Germans commemorated its welcome arrival with great ceremony and display of allegorical character. They denominated the festival *DER SOMMERSGEWINN*, or the *ACQUISITION OF SUMMER*. About thirty years since, the inhabitants of Eisenach, in Saxony, celebrated it in the following manner: They divided themselves into two parties, one of which carried a figure of straw, shaped like a man, to represent *WINTER*, out of the town, as if to banish him from their district; while the other party, being assembled at a distance from the town, and having a figure formed like a youth, which they called *SPRING*, or more vulgarly, *SUMMER*, bedecked it with cypress and flowering hawthorn, and marched with it, with great solemnity, to meet their friends, the expellers of *WINTER*. At the same time the rustics paraded the meads in processions, imploring the blessing of a fruitful summer, and gaily chaunting national ballads which celebrated the delights of the genial seasons; after which the merry crowds escorted their favourite figure in triumph home.

But time, which transforms all things, also effected alterations in this ceremonial. The personifications of the two seasons, which were before represented by inanimate figures, came to be performed by living persons. These actors, the one being attired as *Spring*, and the other as *Winter*, entertained the spectators with a mock encounter, wherein *Winter* was, of course, vanquished, and stripped of his emblematical array; and *Spring*, being proclaimed victorious, was triumphantly led, amidst the plaudits and rejoicings of the assembled crowd, into the town.

The day on which the Germans celebrated this festival, they denominated *Der Todten Sonntag*, the *Dead Sunday*; in allusion to the resemblance which the still repose of *Winter* allegorically bears to the sleep of death. But latterly this celebration, like many other customs of former times, has declined, and at present a mere shadow of the original festival is retained by the inhabitants of Eisenach; yet, although these particular ceremonies have fallen into disuse, the gratitude of the people for the

cheering return of Spring is still evinced by mutual offerings of nosegays and evergreens, and other little emblems of the welcome season. The Rev. Mr. Hutton, in his *Book of Nature*, beautifully observes:—"In the opening of Spring, and subsequent renovation of nature, how very sensibly is the human soul exhilarated by that sense of pleasure which inspires the birds with melody and the whole creation with joy! In this season, when we contemplate the smiling scenes around, those secret overflowings of gladness are diffused over the soul which compose what Milton expressively calls "vernal delight," and which is often denominated, with no less beauty and propriety, "the smile of Nature." What an exquisite sense of this does the virtuous philosopher experience! The creation, particularly in this lovely season, is a perpetual feast to the mind of a good man; from all that he beholds he receives instruction and delight; but when to the delightful satisfaction which rural objects afford, we add an occasional attention to the studies of natural philosophy, our relish for the beauties of creation is quickened, and rendered not only pleasing to the imagination but to the understanding; and it is an unquestionable truth, that the man who extends his inquiries into the works of nature, multiplies, in some degree, the inlets to happiness."

"With what a generous satisfaction, too, will humanity reflect on the restorative effects of Spring! The convalescents, so lately wretched, so long oppressed by the heavy load of pain, and languor, and disease, now feel, as it were, a new creation; and sweet are the cheering sensations, sweet the unwonted joys, that now recall them to the exertions of strength, and the happiness of health."

The zodiacal sign, *Aries*, or the *Ram*, which is entered by the sun on the 20th of March,* the commencing day of the *Vernal*, or *Spring* season, is supposed by some authors to have been derived by the Greeks from the golden fleece brought by Jason from Colchis, about 1263 years before Christ; but it must be of considerably greater antiquity than that event, as it is found to have been used as a hieroglyphical character on ancient Egyptian monuments. It is symbolical of the yearning of lambs, which always takes place in this season. History records, that the inhabitants of the city of Thebes, in Egypt, slew a *ram* in honour of their fabulous god, Jupiter Ammon, who personifies the sun in the sign *Aries*, and who is represented on ancient coins and sculpture with the horns of a ram on his head.

The Hebrews, or Jews, sacrifice a *lamb* at the commencement of Spring, in commemoration of their deliverance from the Egyptian bondage. *Aries*, or the *Ram*, was the ensign of *Gad*, one of their twelve princes, and leader of the tribe of *Gad*.

MANNERS OF THE AGE.

How far a country, or, rather, the people of a country, may improve in those arts and customs which constitute the manners of an age, is, perhaps, a mystery too complicated to unfold; and to define that which may justly be called the *acme*† of perfection, is certainly beyond the power of any speculative theorist, however keen may be his perception.

* This day is, in fact, the first day of the natural year, it being the commencement of the first season, and the period when the sun appears to enter the first of the twelve signs of the zodiac.

† *ACME*, the utmost top, or height of any thing.

Whether there be a point and a period at which refinement and luxury having arrived, polished manners and civilization, from their highest elevation, do sink gradually in the tide of time, and ebb into rudeness and barbarism, is a question insoluble, and on which different opinions may be, and are, entertained.

History is in favour of those who argue the impossibility of a continual advancement in improvement, and science and its records testify that when progression ceased, retrogradation constantly commenced. What became of Babylon, of the Egyptian magi, and the magnificence of all their learning, and of that power and riches which, in the pride of pomp and wealth, raised the mighty pyramids, and left so many instances of science and refinement for future generations to contemplate in splendid ruins? Where is now the philosophy of Greece, her temples, her statues, and memorials? The first of these was transplanted to Rome, the others lie prostrate, or are crumbling to dust, as mementos of the instability of all human greatness. What has now become of the Roman dominion? and where are the triumphal arches, the silver cisterns that formed capacious baths, and the golden ornaments that gorgeously decorated the palaces of the emperors? All those have vanished away—poverty, slavery, and ignorance, have succeeded; and where a bold and high-minded peasantry once upheld the greatness of the Roman name, a timid and idle Lazaroni now sluggishly crawl about in misery, or join the predatory * clan of some barbarous banditti.

Inferences from those records of antiquity applied to our own time and nation, may not, perhaps, be exactly consistent with the altered state of society, and the condition of the world, under a more extensive discovery of, and communication with parts till lately unknown, than those ancient people accomplished; and the subject is rather too delicate for loose and hasty anticipations.

The influx of wealth, through the extension of commerce, and the riches which Great Britain has derived from her eastern dominions, has greatly promoted arts and sciences; and, in consequence, refinement and luxury have spread themselves as far as wealth has been circulated, for wealth is the fountain from whence refinement springs, as sure as that poverty is the parent of barbarism. If we go back to the pages of our national history about two centuries only, we shall find what a degree of rusticity and rudeness prevailed in that age, and even long subsequently; in fact, the dwellings of the nobility and gentry had neither the convenience nor the embellishments, particularly in furniture, that many of the houses of our merchants and eminent tradesmen now possess; and the peasantry were lodged in clay hovels, thatched with straw or rushes, into which they had almost to creep, the entrances being so small, and the roofs so low. Their dress was coarse, and their diet the same, which latter, instead of plates or basins, they took on wooden trenchers, or in earthen cups. Wealth has altered all these things,—the clay hovels have disappeared,—and instead of them substantial brick or stone cottages, tiled or slated, have been erected, the interiors are made more commodious and comfortable, the rooms more lofty than before, and instead of smoky hearths, neat and convenient grates and fire-places are formed; chairs and tables, and even china, with other utensils, are arranged in regular order. The dame of a farm-house receives her visitors to tea, and

sits at a mahogany table, with the air of a duchess, on which stands a urn with water hissing hot, a tray with gilded borders, beautifully ornamented china, and plated, if not solid silver tea-pot, cream jug, spoons, and sugar-tongs; she does not wear a grogram* gown, as formerly, but her dress is of silk, and that, too, of the newest fashion: Queen Elizabeth placed by her side, in the attire of 1558, would look like one of her menials, so *changed are the* "MANNERS OF THE AGE." The sons and daughters and even servants of farmers and village shopkeepers, and tradesmen are tricked† out on a Sunday in all the little ornaments that make a church look gay; all this is from increased wealth, which inevitably affects a change of manners, and produces that softening which we call politeness; and instead of the old plainness, honesty, and rustic simplicity for which the English were once famous, we see a regular imitation of the higher ranks, and a constant aim at refinement. The spinning wheel and the distaff, the oaken table, and other emblems of industry and simplicity, are displaced by the paraphernalia of a toilet, a sideboard, and a pianoforte. The spade and the plough are consigned to envious labourers, and the gun, the fishing-rod, and the well-trimmed steed, to be mounted by a booted and spurred *Actæon*‡ of the chase, are adopted instead of the instruments of husbandry and the labours of the field. If we ascend higher, we may observe the same avidity for elegance and fashion,—which latter is a thing capricious enough, the mere creature of what is called *taste*; and all these "*manners of the age*" are symptoms of wealth and luxury: find out a place where refinement of manners has not extended, if such a place remain in England, and depend upon it the people are comparatively poor. Imitation is the architect of manners in the present age, though some ape their superiors very awkwardly, while others do it with more natural ease and perfection; but in either case, wealth is necessary to carry the design into execution. No doubt this universal affectation of taste and refinement, in the present age, is advantageous, so far as it corrects the stern refractoriness of temper incident to human nature in an uncultivated or untutored condition; it softens and smooths the rugged virtues of untaught minds, and renders humanity and benevolence more amiable by their delicate administration of charity and deeds of kindness, and by it the intercourse of society are rendered more pleasant and agreeable than could be realized and enjoyed in the transactions and associations of a rude and vulgar community, however virtuous their general sentiments might be, for where there is a deficiency of variety and polished manners, there will be a sameness and rudeness of demeanour more suitable to savages than to an enlightened and intelligent people. But wealth, and the polished manners of the age, do not make it an entirely golden age; there is an alloy which in fairness and candour we must acknowledge. The spirit of competition that makes men vie with each other in sumptuousness and profusion, has necessitated them, in order to keep up appearances of rank or station, to fall into the vice of *venality*,§ and to barter in independency and honesty, for some sort of lucrative post, job,

* GROGRAM, a sort of stuff, made of hair and silk.

† TRICKED, dressed, adorned: also cheated.

‡ ACTÆON, a famous huntsman of Greece, son of Aristæus and Autonoe, daughter of Cadmus, a Greek.

§ VENALITY, a disposition that renders a person ready to flatter, or agree to any thing for gain.

* PREDATORY, plundering, hungry, preying.

office, place, or pension; and, perhaps, even to open their hands for bribes; this is a great evil, and in a free constitution will be productive of much mischief; however, it is inseparable from the condition of a great trading and wealth-seeking nation, and will remain a large drawback on the advantages that commerce, civilization, and refinement confer upon a country.

When we talk of the manners of an age we need not extend our remarks to a whole century, for in twenty or thirty years a keen observer will discover manifest changes and alterations in the costume, habits, and even sentiments of a people. Great events most remarkably accelerate those changes, and whoever has lived long enough to remember the state of society before the French Revolution, can verify this fact from experience.

We are not treating of the manners of the age as applicable to any other country beside our own; but when a contagion is imported, we naturally inquire into its origin, from whence it came, and the cause or causes by which it was excited; such also has been the result of this memorable event, that the sentiments, manners, and political opinions of the French and British people approximate so near to similarity, that a description of one may serve tolerably well for the other; and where governments are upheld by the like institutions, and enjoy an equal share of liberty, the views and pursuits of the people under such legislatures will not be long very different from each other, for all history, ancient and modern, confirms the fact, that modes of government, have a considerable influence on the genius, manners, industry, and enterprise of the people. Before this convulsive struggle between freedom and despotism, which agitated all Europe, beginning at its centre, bag-wigs and powdered heads, to both male and female, were indispensable parts of dress; and even linen drapers' shop-men and apprentices were held repugnant to the favour and custom of ladies if their heads were not well dressed and powdered outside, however little might have been done for the inside department. Tradesmen also affected splendour in dress, and the master blacksmith, before the ominous fashion of *strings* came into vogue,—his silk stockings, breeches, and fancy waistcoat, with deep ruffles, that, with the aid of gloves, concealed his dingy fingers, and just allowed him, as a gentleman, to whisk about his ratan* in the Mall of St. James's Park on a Sunday,—would, as a beau of 1790, quite outshine the dandies of the present time, even those that study appearances rather than excellencies of intrinsic value. Thus has costume changed from tawdry and glittering, to simplicity and plainness among tradesmen, (fops we leave out of the question) and this change, simple as it may seem, is no slight indication of a revolution in the "*manners of the age*." Hospitality, credit, and confidence, within the last half century, have declined, and a profusion of a less excusable kind, it is to be feared, has succeeded in the distribution of wealth, upon avaricious and selfish speculations, schemes for defrauding the simple or incautious, and practices that destroy faith and credit, to the great injury, if not frequently the ruin, of honest dealers.

Mankind, it is true; are more enlightened, and knowledge has been nursed from infancy to maturity; but while the bantling has been reared by the printing press, an hereditary disease of cunning and cupidity† has, unavoid-

ably, been fostered in the infected constitution of the social body. Considerations on this incidental evil have biased some ingenious politicians to think that high refinement is not productive of happiness, and that luxury, by increasing our wants and desires, has reduced us to a more miserable condition than our rude and stinted forefathers, who, living according to nature, knew not, and felt not those wants and desires; and, consequently, were free from the tortures of privations that poverty inflicts when luxuries are seen but cannot be tasted, and where enjoyed, they maintain that they bring upon the voluptuous possessors disease and suffering. This argument, if allowed, would shut out all improvement, and is little short of a denunciation against planting and sowing, lest thorns should grow in your orchards, and thistles spring up among your wheat. And it has never been known that savages, civilized and instructed, regretted the loss of their wild condition; or the precarious life of subsisting by hunting, or by devouring the spontaneous fruits of the forest. Even wild beasts, when tamed, do not willingly return to the woods, so strong is nature herself in favour of civilization and refinement of *manners*; so that instead of arguing the point, our endeavours should be, as much as possible, to correct what is amiss, and to ameliorate and improve the *present* "MANNERS OF OUR AGE AND COUNTRY."

HOMER.

(Continued from page 120.)

OF THE FABLE OF THE ODYSSEY.

The subject of the *Odyssey* is the return of Ulysses to Ithaca, a small island, of which he was the sovereign. This hero had not the advantage of being a demi-god, like Achilles; nevertheless, he eminently possessed qualities equally worthy. He joined to a wonderful share of fortitude, a most consummate prudence.

The *ODYSSEY* opens by a council of the gods, who decree the return of ULYSSES to Ithaca. Minerva interests herself for the young Telemachus, whom she endeavoured to render worthy of such a father.

Mercury is dispatched to Calypso,* with the resolution of the gods, and orders the releasement of Ulysses. Our hero sets out alone, crosses the seas, and by a tempest is cast away upon an island belonging to the Pheacians. Here he remains till the inhabitants had furnished him with a vessel to transport him to Ithaca, where he at length arrived; and, by the assistance of Minerva, puts to death those who had, in his absence, committed the greatest disorders. Minerva makes a lasting peace between our hero and his subjects, which concludes the poem.

TELEMACHUS, the son of Ulysses and Penelope, was still in his cradle when his father went with the rest of the Greeks to the Trojan War. At the end of the war, Telemachus, anxious to see his father, went to seek him, and visited the courts of Menelaus and Nestor, to obtain information. He was accompanied in his visit by the "Goddess of Wisdom," under the form of MENTOR.

SOME FEW OF THE MOST STRIKING BEAUTIES OF HOMER.

THETIS throws herself at the feet of Jupiter to implore him to avenge the cause of Achilles. The great Master of the Universe

* CALYPSO is said to have reigned in the island of Ogygia, whose situation and even existence is doubted. When Ulysses was shipwrecked on her coast she received him with great hospitality. He remained here seven years, when he departed for Ithaca.

* RATAN, a small Italian cane.

† CUPIDITY, desire, passion.

hears her supplication, and assures her of the accomplishment of her wishes by an inclination of the head.

He spoke, and awful bends his sable brows ;
Shakes his ambrosial curls, and gives the nod ;
The stamp of Fate and sanction of the God :
High heav'n, with trembling, the dreadful signal took,
And all Olympus to the centre shook.

Phidias was so powerfully struck with the majesty of his image, as to produce that wonderful piece of sculpture, his Jupiter Olympus.

Homer's power of description is seen in the following simile. He is describing the march of the Grecian army.

"Now like a deluge covering all around,
The shining armies sweep along the ground ;
Swift as a flood of fire, when storms arise,
Floats the wide field, and blazes to the skies.
Earth groan'd beneath them ; as when angry Jove
Hurls down the forky light'ning from above,
Or Arime, when he the thunder throws,
And fires Typhæus with redoubled blows,
Where Typhon, prest beneath the burning load,
Still feels the fury of the avenging God."

Besides the beauties of Homer's similes, which give so much life to his poems, he abounds in local circumstances, and allusions to the customs of the times and persons then existing, so as to present the most picturesque and interesting view of the objects. Of this kind is his description of the scenery near Troy, of the Palace of Priam, of Nestor's Cup, and Agamemnon's Staff; indeed, all is nature, exhibiting the scenes in the most lively circumstances; and in this, as in other important respects, he greatly resembles the lively genius of Shakspeare, who, likewise, abounds in those familiar and natural allusions, more than any other English poet.

The following lines, which so beautifully discriminate the physical distinction betwixt the natural tempers and warlike modes of the Greeks and Asiatics, are not only truly admirable for their poetry and fine allegory, but also for the philosophical spirit in which they are written.

"As when the winds, ascending by degrees,
First move the whitening surface of the seas,
The billows float in order to the shore,
The wave behind rolls on the wave before ;
Till, with the growing storm the deeps arise,
Foam o'er the rocks, and thunder to the skies,
So to the fight the thick battalions throng ;
Shields urg'd on shields, and men drove men along.
Sedate and silent move the numerous bands ;
No sound, no whisper, but the chief's commands,
Those only heard ; with awe the rest obey,
As if some god had snatch'd their voice away.
Not so the Trojans ; from their host ascends
A gen'ral shout that all the region rends.
As when the fleecy flocks unnumber'd stand
In wealthy folds, and wait the milker's hand,
The hollow vale, incessant bleating fills,
The lambs reply from all the neighb'ring hills :
Such clamours rose from various nations round,
Mix'd was the murmur, and confused the sound.
Each host now joins, and each a god inspires,
These Mars incites, and those Minerva fires.
Pale flight around, and dreadful terror reign ;
And discord raging, bathes the purple plain :
Discord ! dire sister of the slaught'ring pow'r,
Small at her birth, but rising ev'ry hour,
While scarce the skies her horrid head can bound,
She stalks on earth, and shakes the world around ;
The nations bleed, where'er her step she turns,
The groan still deepens, and the combat burns !"

Homer, as before observed, greatly excels in gradation, or in rising gradually, as it were, above himself. This is nowhere more conspicuous than in the character he draws of Hector: and

of all the characters in the Iliad, we deem this the most accomplished. The poet seems to take a delight to dwell on it, and has represented it in such a variety of attitudes, as makes it highly interesting to every reader. To paint him forth as a noble and gallant warrior, he has lavished all the art pencil and colours could in any way contribute; and we are amazed at the imagination of the poet in being able to exhibit him so often in his warlike capacity; and yet at every appearance to clothe him with a new dress, and with some additional lustre or terror. As a warrior, therefore, he appears greatly distinguished; and we see the poet's design in this has been to throw the more glory on Achilles, with whom he intended to contrast him. But what interests most in this character, and sets off every other quality in it, is the amiable light in which Hector is exhibited in the sixth book, where, in his interview with Andromache, he

—"resigned
To tender passions all his mighty mind."—POPE.

As an illustration of this, we quote the following lines, in which are described the affecting scene of meeting which took place between him and his tender and affectionate wife at the Scæan gate, and which, for sentiment and feeling, scarcely any thing can equal.

HECTOR TAKING LEAVE OF ANDROMACHE.

Swift thro' the town he trod his former way,
Thro' streets of palaces, and walks of state ;
And met the mourner at the Scæan gate.
With haste to meet him sprung the joyful fair,
The blameless wife, Ætion's wealthy heir.

* * * * *

The nurse stood near, in whose embraces prest
His only hope hung smiling at her breast,
Whom each soft charm and early grace adorn,
Fair as the new-born star that gilds the morn.
To this lov'd infant Hector gave the name
Scamandrius, from Scamander's honour'd stream :
Astyanax the Trojans call'd the boy,
From his great father, the defence of Troy.
Silent the warrior smil'd, and, pleas'd, resign'd
To tender passions all his mighty mind :
His beauteous princess cast a mournful look,
Hung on his hand, and then dejected spoke ;
Her bosom labour'd with a boding sigh,
And the big tear stood trembling in her eye.

Andromache endeavours to soften her beloved lord, and conjures him, by all that is sacred, not to quit the ramparts. Hector consoles her with all the endearing expressions which love and honour could possibly dictate. As he is going to take his leave, he turns towards his son, and

Stretch'd his fond arms to clasp the lovely boy.
The babe clung crying to his nurse's breast,
Scar'd at the dazzling helm and nodding crest.
With secret pleasure each fond parent smil'd,
And Hector hastened to relieve the child ;
The glitt'ring terrors from his brows unbound,
And plac'd the beaming helmet on the ground ;
Then kiss'd the child, and, lifting high in air,
Thus to the gods preferr'd a father's prayer :—

"O thou, whose glory fills th' æth'ral throne !
And all ye deathless pow'rs ! protect my son !
Grant him, like me, to purchase just renown,
To guard the Trojans, to defend the crown ;
Against his country's foes the war to wage,
And rise the Hector of the future age ;
So when, triumphant from successful toils,
Of heroes slain he bears the reeking spoils,
Whole hosts may hail him with deserv'd acclaim,
And say, This chief transcends his father's fame ;
While, pleas'd amid the gen'ral shouts of Troy,
His mother's conscious heart o'erflows with joy."

He spoke; and fondly gazing on her charms,
 Restor'd the pleasing burden to her arms;
 Soft on her fragrant breast the babe she laid,
 Hush'd to repose, and with a smile survey'd.
 The troubled pleasure soon chas'd by fear,
 She mingled with the smile a tender tear.
 The soften'd chief, with kind compassion view'd,
 And dry'd the falling drops, and thus pursued :

"Andromache! my soul's far better part,
 Why with untimely sorrows leaves thy heart?
 No hostile hand can antedate my doom,
 Till fate condemns me to the silent tomb.
 Fix'd is the term to all the race of earth;
 And such the hard condition of our birth.
 No force can then resist, no flight can save,
 All sink alike, the fearful and the brave.
 No more—but hasten to thy tasks at home,
 There guide the spindle and direct the loom;
 Me glory summons to the martial scene,
 The field of combat is the sphere for men.
 Where heroes war, the foremost place I claim,
 The first in danger, as the first in fame."

Thus having said, the glorious chief resumes
 His tow'ry helmet, black with shading plumes.
 His princess parts with a prophetic sigh,
 Unwilling parts, and oft reverts her eye,
 That stream'd at every look: then, moving slow,
 Sought her own palace, and indulg'd her woe.
 There, while her tears deplor'd the god-like man,
 Thro' all her train the soft infection ran,
 The pious maids their mingled sorrows shed,
 And mourn the living Hector, as the dead.

HISTORICAL AND BIOGRAPHICAL MEMORANDA OF APRIL.

April 14th, in 1039, died *Harold I.* surnamed *Harefoot*, in consequence of his great speed. He was a natural son of King Canute, the Dane. He proved himself very tyrannical, and particularly cruel to Queen *Emma*, whose son *Alfred*, by her former husband, *Ethelred*, he caused to be traitorously assassinated. Harold reigned only five years, when he died, and was interred at Westminster.

On this day, in 1558, *Mary, Queen of Scots*, espoused the dauphin of France, afterwards *Francis II.* The marriage was solemnized with great pomp; and the French, who had previously affected to draw a veil over their designs upon Scotland, then began to unfold their intentions without disguise. In the treaty of marriage, the deputies had agreed, that the dauphin should assume the title of king of Scotland, which they considered only as an honorary dignity; whereas, the French laboured to annex to the same some solid privileges and power. They therefore insisted, that the dauphin's claim should be publicly recognized; that the *Crown Matrimonial* should be conferred upon him; and that all the rights appertaining to the husband of a queen should be vested in his person. By the Scotch laws, one marrying an heiress kept her estate during his own life, if he survived her, and the children born of that marriage, which was called the courtesy of Scotland; a rule the French sought to apply to the succession in this instance, implied in their demand of the "*Crown Matrimonial*," a phrase peculiar to Scottish historians.

April 15th, 1797. This day was distinguished by a meeting among the seamen at the Nore, of which the following are the particulars:—

For some days previous to this date, anonymous letters had been sent to the superior officers of the fleet off Spithead, and to the Board of Admiralty, stating the hardships which the seamen suffered from the insufficiency of their pay, and other grievances. As the discontent had universally pervaded the fleet, the concurrence of the seamen in the petitions to their superior officers was likewise universal.

The language was the most respectful possible; their conduct in every sense, except their temporary disobedience to their officers, was strict and exemplary; and it was hinted that an answer was expected before they put to sea again, unless the enemy's fleet should be known to have sailed, or that a *convoy** was wanted.

The greatest loyalty to the king was professed, with undeviating

attachment to their country. The first symptoms of disobedience, it is said, were manifested when Lord Bridport made signals to weigh on the 16th, at which time a signal was hoisted from the *Queen Charlotte* for the crews of each ship to give three cheers. From that moment, the authority of the officers was at an end, and the seamen became in time masters of the fleet. Two delegates were next sent from each ship of the squadron, who regularly met every day on board the *Queen Charlotte*. Admiral Pole arrived at the Admiralty on the night of the 16th, and communicated their proceedings. A council was therefore held the next morning, the result of which was, that Earl Spencer and Lord Arden immediately set off for Portsmouth in order to investigate this alarming business.

Several petitions relative to the increase of pay and provisions were drawn up on the 18th by the delegates of the fleet, and presented to the House of Commons and to the Lords of the Admiralty.

The prayers of these petitions being severally attended to, the seamen still refused to weigh anchor until His Majesty's pardon was granted; in consequence of which, the king issued a proclamation on the 22d of April to that effect. And thus, for a period, terminated that most alarming affair.

April 18th, in 1795, *Rear Admiral Colpoys*, after a gallant action, captured *La Gloire* and *La Gentile*, two French frigates of forty-four guns each.

April 21st, in 1644, *Arundel Castle*, which was in possession of Charles I. was captured by Sir William Waller; at the same time the learned *Chillingworth* was made prisoner, who died a few days after.

On this day, in 1645, Prince Rupert having encountered Colonel Massey, the Parliamentarian, at Ledbury, an action took place, in which the latter was defeated with considerable loss.

April 22d, in 1659, *Richard Cromwell* was deposed. It was found necessary, on the advancement of Richard Cromwell to the Protectorate, to convene a Parliament in order to furnish supplies for carrying on the ordinary expenditure of Government. The House of Commons was well constituted; but that of the Peers consisted only of those persons of no real title, who had been advanced to their dignified stations by the late protector. It was not, however, on Parliament that the army founded its reliance; many of the malcontents among the military formed a meeting at General Fleetwood's, which, as he resided in Wallingford House, was called the *Cabal of Wallingford*. The result of the deliberations of that assembly was a remonstrance, that the command of the army should be entrusted to some person in whom they might all place reliance, and it was moreover plainly stated, that the young Protector was not that person.

Such a daring and dangerous proposal did not fail to alarm Richard, who applied to his Council, and then referred himself to his Parliament, when both agreed, that it was an audacious attempt, and a vote was passed, that there should be no meeting, or general council of officers, without being sanctioned by the Protector. An immediate rupture proved the consequence; the palace of the Protector was on the following day surrounded by officers, when one *Desborow*, a man of a brutish nature, penetrating into his apartment with some armed adherents, proceeded to threaten Richard in case of refusal. The Protector, unlike his enterprising and undaunted father, failed in resolution to defend that which had been conferred upon him; he, therefore, in a quiescent manner, dissolved the Parliament, and soon after signed his own abdication in due form.

April 23d, in 1014, was fought the battle of *Contarf*, in Ireland, between the *Irish* and the *Danes*. About the beginning of the year 1014 *Brian Boro* treated with most of the Irish petty kings to unite all their forces with him, and endeavour to expel the Danes as the public enemies of the kingdom; against whom *Sitricus*, having made all the preparations and alliances possible, a most sanguinary battle was fought between them on the 23d of April at a place called *Contarf*, near Dublin. On that occasion, authors vary about the success of the victory; most, however, agreeing, that Brian was there mortally wounded, and his son *Murschard*, with many persons of quality, besides upwards of 7000 men lost their lives. The Danes also suffered severely, who, with the relics of their forces, retired to Dublin; soon after which, *Metachlin*, king of Meath, who, out of enmity to Brian, had coalesced with *Sitricus*, was, by the populace, proclaimed king.

supply of men, money, ammunition, or provisions, conveyed by land into a town, army, or the like, in time of war.

To *CONVOY*, signifies to guard, or protect ships by sea, or provisions by land, from falling into the hands of an enemy.

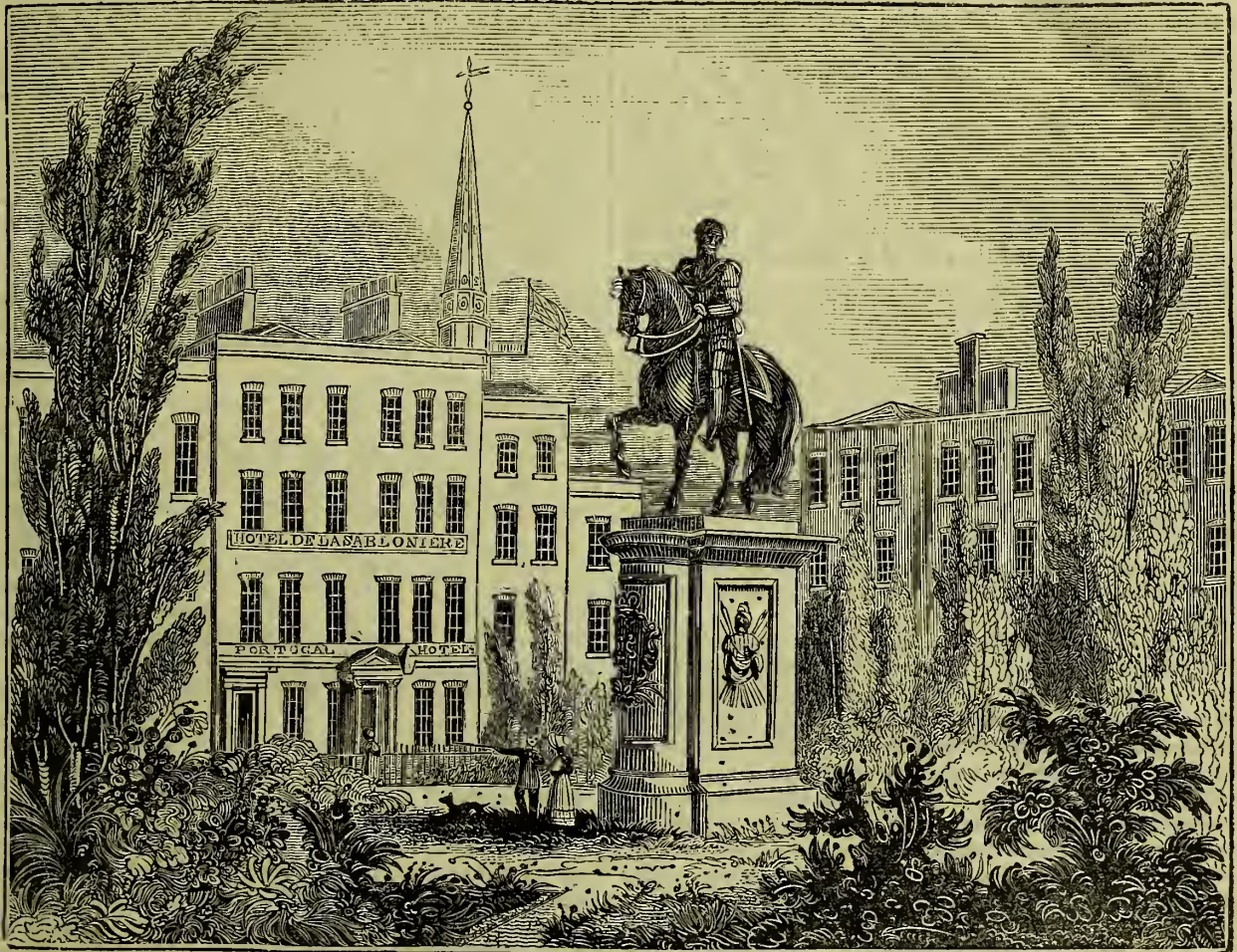
* *CONVOY* (in Maritime Affairs), one or more ships of war, employed to accompany and protect merchant ships against pirates, and other enemies. In Military Matters, it is a body of soldiers appointed to guard any

PINNOCK'S
GUIDE TO KNOWLEDGE.

No. CXIV.

SATURDAY, MAY 17, 1834.

PRICE
ONE PENNY.



HOGARTH'S HOUSE, IN LEICESTER SQUARE.

PLACES sanctified by the residence of genius possess an interest with posterity to which in themselves they have no claim. The site of the Boar's Head in East Cheap, though the tavern has long since passed away, is an object of curiosity to the admirer of Shakspeare; Bolt Court has acquired celebrity from the residence of Dr. Johnson; and Green Arbour Court is visited by those who hold the name of Goldsmith in respect, though they cannot but be surprised that the Muses ever condescended to visit such a scene of noise and confusion.

The house in which Hogarth resided, and where he executed many of those works, which have conferred on him such lasting fame, possesses advantages denied to those above-mentioned; it is a respectable edifice situated in a genteel neighbourhood, and is now known as "THE SABLONIERE HOTEL," Leicester-square.

WILLIAM HOGARTH was born in Ship Court, in the Old Bailey, in 1698. His father, who was a literary character,

gave him a respectable education, but could do little towards promoting his success in life; although, therefore, he early displayed considerable genius for drawing, excited perhaps by his frequent visits to a neighbouring painter, he was apprenticed to an engraver on plate.

Trifling circumstances sometimes draw forth the latent powers of genius. One day, Hogarth having entered a public house at Highgate, for refreshment, was witness to a quarrel, in which one person struck another with a quart pot, and cut his head severely; he immediately drew out his pencil, and sketched the scene with great truth and spirit, producing admirable likenesses of the two disputants, and caricatures of the rest of the company.

From this time, he appears to have been ambitious of becoming a painter, and for this purpose, he lost no opportunity of studying nature; not as she is seen in fields and groves, but among the busy haunts of men. By this method, he qualified himself to become not only an able

artist, but a judicious moralist. His abilities as an engraver, also, served to give publicity to his pictures by multiplying copies of them.

It would exceed the limits of this sketch to notice all the productions of his genius, and to descant upon their merits. His "*Rake's Progress*" was his first grand series of moral paintings, in which are faithfully shewn the gradual advance of a thoughtless youth, to vice, profligacy, debauchery, and ruin.

In 1730, he married the only daughter of Sir James Thornhill, whose works in the Cupola of St. Paul's, and the Hall of Greenwich Hospital, sufficiently bespeak his merits as a Painter. At first, this match did not meet with the approbation of Sir James; but when he saw the designs of the "*Harlot's Progress*," he was so satisfied of his son-in-law's extraordinary talents, that he became reconciled to him, and they lived in habits of the sincerest intimacy till death.

"*MARRIAGE A LA MODE*" was the next work that contributed to increase his fame. The masterly manner in which the evils attendant on a mercenary union are delineated offers a valuable moral lesson to those who consider riches more than equivalent to all the qualities which can render marriage respectable and happy.

Going to France soon after the peace of Aix-la-Chapelle, and attempting to draw the gate of Calais, he was arrested as a spy, and put under restraint till he could embark for England. In 1753 he published a quarto volume, entitled "*The Analysis of Beauty*;" and in 1757 he succeeded his brother-in-law, Mr. Thornhill, as sergeant painter to the king.

Mr. Walpole styles Hogarth a great and original genius, but considers him rather as a writer of comedy with the pencil, than a painter. But to his honour be it observed, that reformation, not ridicule, was his aim. It is seldom that his figures do not express the character he intended to give them. When they wanted an illustration that colours could not bestow, he employed collateral circumstances, full of wit, to explain them. Thus, the spider's web, extended over the poor's box in the parish church, is replete with meaning, and shews how seldom it was disturbed by the contributions of the charitable.

Hogarth died at his house in Leicester-fields, October 26, 1764, aged 67, and was interred in the church-yard at Chiswick, where a monument is erected to his memory. He was just and honourable in his conduct, but unpolished in his manners, and rather inclined to detract from the merits of others.

THE WORKING CLASSES.

PERSONS who live by labour are apt to think that their condition is worse than any other, and that ease and idleness are desirable as objects of enjoyment; but in this opinion a little reflection will convince them that this is an entire mistake, for nothing can be more irksome than having nothing to do; and every one knows, by experience, how tediously the hours pass which are wasted in suspense and without employment, if he has ever had the misery of enduring the trial. The restlessness, the yawning, the anxiety for something to amuse, and the mopishness of his mind, all indicate a state of unhappiness, and that something is wanting to afford him peace of mind and solid comfort.

The usual reply to this argument is, that if a man

possessed an independent fortune, he might take his pleasure and live more happily, and in greater enjoyment, than can be realized by persons who are obliged to labour for a living. But this idea is illusive; the round of pleasure is soon run; satiety follows, and disgust seizes on its victim like a distemper of the most afflicting kind. Food is pleasant to the taste of a hungry person; but when filled, he has no more appetite, and can derive no gratification from the most delicious or costly viands that might be placed before him, and it is the nature of all pleasures to cloy and disgust, for they were never designed but for occasional recreation, and, like food for the appetite, to be taken when absolutely necessary, and not to an excess. Again, What is pleasure?—for this is a consideration of importance,—is it in a series of debaucheries? in voluptuous living? in intemperance? in theatrical amusements? in sights of wonder? in splendour of dress? in flattery? or any other of the idle indulgences and scenes of life? and can these be had without a forfeit of health, and the accumulation of diseases, to which a labouring man is a total stranger? Would a man drink nectar if he knew that poison was in the cup?—but the chalice of pleasure has that fatal ingredient at the bottom, and the cautious will not drink too deeply. The labours of the field, or of the anvil, are toilsome and fatiguing; the husbandman turns the stubborn glebe with great exertion of bodily strength, and almost sinks beneath the weight of harvest-work; and the smith, with sweat and smutty brow, exerts the utmost of his muscular powers to beat the iron into useful tools and implements, for various purposes, but they have health, precious health! while the emaciated idler goes by in his chariot, incapable of any enjoyment, debilitated and languishing in the tortures of disease; he eats not, he sleeps not, his pampered appetite renders food quite nauseous, his pains deny him the sweet repose of slumber—Whose condition is to be envied? The labouring man enjoys his meal, lies down to sleep, and rises refreshed, feels invigorated, and returns to his work with the consciousness of being useful in the world, as well as capable of enjoyment. If a man has a just idea of what is good and useful, his chief satisfaction will be in performing his business well, and endeavouring to excel in the execution of whatever his avocation places in his hands, for he cannot help being pleased with the perfection of any work that he has completed; to acquit himself satisfactorily, and turn out the productions of his hands in a superior style, must be pleasing to his mind, and gratifying to his feelings, and therefore a source of real pleasure; in fact, there is in it something of a godlike idea, for when the Creator had finished his work he looked upon it, and saw that it was good.

There are also times of relaxation from labour, and days of rest, when recreations may be enjoyed, and with all the delight that novelty and desire can possibly give: but it must be observed, that some discretion is necessary in the choice of recreations; the man who labours for his daily bread has a mind as well as the man who lives by, or is stored with learning, and he cannot do better than to refresh his mind with reading, study, and instructive conversation, to fill up that time which is not occupied in attending some place of public devotion. If he be a married man, and have a family, he will find these practices not only more pleasant on that account, but also conducive to domestic enjoyment, and the comfortable prospect of leading his children into the way of happiness; but let him avoid the haunts of riot and intemperance, as he

would the dens of savage beasts, for they are the dens of those monsters, Vice, Poverty, and Disease, that pray upon, and destroy every real and substantial enjoyment; it is by falling into these fountains of vice and folly, that the streams of domestic enjoyment, and the current of family fortune, become turbid and polluted to the very extent of their courses. He who seeks to enjoy life, must pursue the way to attain that aim, and as it can only be accomplished by rational and moral conduct and demeanour, he must in his own person lead the way that he may draw others after him; the example he sets will seldom fail of its effect, and like the bodies on which light descends, will reflect a lustre borrowed from the sun that brightens them. The reflections on these advantages, and the improvement to be derived from reading at stated periods of relaxation from labour, will soften the toil which he has to endure, and make that easy which, with a discontented and vicious inclination, would be an intolerable burden; for the mind that is loaded with ignorance and vice, adds double affliction even to the bondage of slavery.

But there are many mechanical and manufacturing employments which may be ranked among the working branches, that are of an inactive or sedentary kind, and that require the operatives therein to be shut up in close apartments every day, and who, when opportunity occurs, ought to have air and exercise; they of course do not need to rest their limbs in an easy chair, and cannot be expected to place books on their work board, and continue sitting as when at their business, yet they had better do this than sit in a dirty tap-room, half smothered in fumes of tobacco, sitting and stupifying themselves, and listening to blasphemy, quarrelling, and cursing;—let such individuals rather betake themselves to the fields and walks of the open country, and try to recreate themselves with the works of Nature, and while they perambulate, endeavour to draw instructions from her mighty volume,—every tree is a page, every branch a sentence, every leaf a word, and every blossom a picture, to embellish and illustrate the page. In studying this book he will be reminded of its Author, and will not fail of being intellectually improved, and furnished with matter for many days' contemplation, while he inhales the health-inspiring breeze, and feels himself reanimated in mind and body; neither can he continue forgetful of his God when he has considered his works, and listened to the songs of the feathered tribes, for even all around him will seem to join in an universal choir of praise. Scarcely any condition of life precludes a person from leisure and recreation; but if he make a bad choice of his pleasures, he may blame himself that happiness is not his portion; hours of leisure misused, or passing in indolence, cannot afford any enjoyment, but if sacrificed to dissipation they must, and certainly will, bring discontent and misery. Some men, who neglect their families, endeavour to excuse themselves by complaining that they are uncomfortable at home, and fly to a public-house for society, and to get out of domestic strife and contention,—a poor plea indeed, and certainly not the way to make the matter better! Those men too frequently kindle the fire themselves, like one setting his house in flames, that he may have an excuse for running out of it. A wise man will not desert his habitation for a few sparks of anger, but will try to extinguish them without alarm or confusion; but at all events let him remember, that the bird which forsakes his nest can never find it so

comfortable on his return as if he had remained to keep it in order.

To some working men a word of advice as to cleanliness may be useful. All businesses that accumulate dirt on the person will be pernicious if that dirt be suffered to remain, especially such businesses as require drugs or minerals of a narcotic quality to effect their works; persons so employed should never take a meal without washing their hands and face, and particularly cleaning under and round their nails; nor should they ever retire to rest without washing themselves clean from what adheres to the person; a little trouble should not be thought burdensome, when the object of it is to preserve health, and prevent debilitating diseases; in fact, this precaution is too much neglected by working persons generally, and it is much to be regretted that in great towns, and London particularly, there are not greater facilities, and more conveniences for bathing.

Mechanics and working men in England are too little thoughtful of the future, and not sufficiently provident, when they have opportunities of being so; they seem neither to anticipate want of employment nor the approaches of age or infirmity; and if they can supply their immediate wants, they are not concerned about what is to come. Many who can earn large wages, will waste two, or even three days in the week, in idleness, or worse practices. This is an evil that prudence should lead them to avoid, for they cannot expect any good from it, nor do they experience any pleasure of rest and relaxation, neither do they return to work with that cheerfulness and alacrity that they would feel by being regularly employed, and at the end of the week they often experience the ill consequences of a great diminution in their pecuniary concerns.

Luxury and inebriety have greatly contaminated the morals of mechanical men; it is a pity that such should be the case, and that so many of that valuable class of men should be so debased, and so regardless of that dignity and reputation which their usefulness would entitle them to claim, did they but know their own worth, their own interest, and the rank which they ought to hold in society.

ALGEBRA.

ALGEBRA is the expressing of quantity by conventional symbols: a, b, c, d , are the signs or characters that denote given quantities; z, y, x , &c. are the signs of unknown quantities. Equal quantities are denoted by the same characters; m, n, r, s, t , are the characters of indeterminate exponents.

+ the sign of Addition.

— Subtraction.

= Equality.

: Arithmetical proportion disjunct.

:: Identity of ratio.

× Multiplication.

÷ Division.

⊙ Involution.

~ Similitude.

✓ Radicality.

In all the applications of Algebra it is not the magnitudes concerned that we consider, but merely their proportions. The letters of the alphabet, or any other symbol used in Algebra, are not therefore, strictly speaking, the representations of magnitudes; they denote ratios, or abstract numbers.

THE FIVE SENSES.

(Continued from p. 109.)

THE SENSE OF SIGHT.—No. IV.

MOTIONS OF THE EYE.

IN looking at a telescope, our attention is arrested by the ease with which it is turned, at the will of the operator, from one object to another, and we readily perceive that without the aid of a number of adjusting wheels and screws, by which its motions are effected, the instrument itself would have been comparatively useless. It is just the same with the eye. We have seen that it is admirably contrived in all its parts for the production of vision, and we shall presently find that it is no less admirably furnished with the necessary apparatus for making its powers constantly available to our wants and wishes. Dr. More, in his "Antidote against Atheism," has quaintly, but prettily said, that "the eye in its structure is so perfect, that the reason of an atheist ought easily to have rested in the exhibition of its marvels, and without further inquiry, have passed from admiration of the contrivance, to worship of the DIVINE CONTRIVER." But willing to accumulate the argument, he goes on to observe that "man being able to move his whole body upward and downward, and on every side, might have unawares thought himself sufficiently well provided for; but Nature hath added *muscles* also to the eyes, that no perfection might be wanting; for we have often occasion to move our eyes when convenience requires that our head should remain unmoved, as in reading, and in viewing more particularly an object set before us, by transferring the axis of our eyes all over it; and that this may be done with the more ease and certainty, she hath furnished this organ with no fewer than *six* muscles, to move it upward, downward, to the right and left, obliquely, and round about."

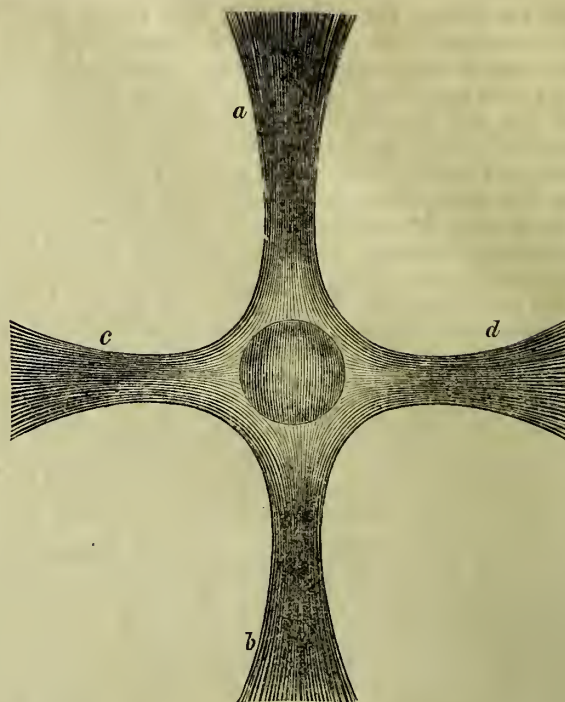
These remarks will prepare the reader to consider in detail the "admirable particulars" of the muscular apparatus for moving the eye.

The eye, in its natural position, is placed in a bony chamber, called the "*orbit*," or, more commonly, the "*socket*," where it rests in a bed of fat, so soft and yielding, as to allow it a free rolling motion in any direction. The motions are produced by four straight and two oblique muscles.

STRAIGHT MUSCLES.

1. THE RECTUS ATTOLENS OCULI—Latin terms signifying *the straight raising muscle of the eye*. This muscle starts, or, in anatomical language, "*arises*" from a portion of the sphenoidal bone in the bottom of the chamber of the eye, and passing forwards and *upwards*, is fastened, or "*inserted*" into the sclerotic coat, at the *top* of the eye-ball. Its use is, by contracting in its length, to turn the front of the eye upwards, as in the act of devotion, or the expression of scorn, from which latter circumstance it was called by the old anatomists, "*superbus*," denoting a high look, and haughty disposition.

2. RECTUS DEPRIMENS OCULI,—Latin terms signifying *the straight depressing muscle of the eye*. Arises from the spheroidal bone in the bottom of the chamber of the eye, and passing forwards and *downwards*, is inserted into the sclerotic coat, at the *bottom* of the eye-ball. It will be observed that the direction and insertion of this muscle are exactly the opposite of the attolens, and, as might



The Cornea, with the Four straight Muscles of the Eye, spread out, showing the junction of their Tendons with the Sclerotic Coat.

a. The Attolens; b. The Deprimens; c. The Adductor; d. The Abductor.

therefore be inferred, its use is exactly the reverse. It turns the front of the eye downwards, and has been called the "*humilis*," as betokening humility, the expression which its action produces.

3. RECTUS ADDUCENS OCULI, or the ADDUCTOR—Latin names signifying *the straight muscle which "brings to," or turns inwards, the ball of the eye*. Arises like the preceding, from the bottom of the chamber of the eye, and passing forwards towards the *inner* angle of the eyelids, is inserted into the sclerotic coat on the side next the nose. Its use is to roll the front of the eye inwards, and was once called from this circumstance, "*bibitorius*," a Latin word signifying a drinker, because in the act of drinking we turn the eye inwards to examine the fluid.

4. RECTUS ABDUCENS OCULI, or the ABDUCTOR—Latin names signifying *the straight muscle which "leads away," or turns outwards the ball of the eye*. Arises from the bottom of the orbit, and passing forwards towards the *outer* angle of the eyelids, is inserted into the sclerotic coat, on the side of the eye-ball next the temple. In action, it rolls the front of the eye outwards, or from the nose, and was called by our fanciful forefathers, "*indignabundus*," a Latin term, meaning "enraged," and denoting it as the muscle by which are produced those side long looks which express anger and scornful resentment.

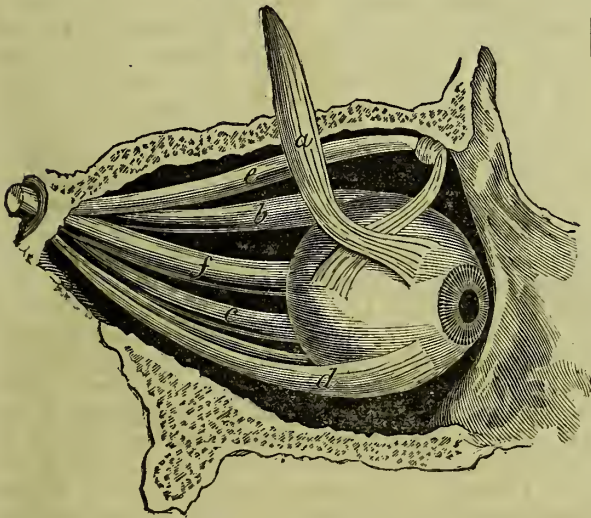
These four muscles, at their origin, surround and protect the optic nerve, where it enters the chamber of the eye; and at their termination expand into four broad tendons, which belt the eye ball, and add greatly to its strength.

OBLIQUE MUSCLES.

1. OBLIQUUS SUPERIOR OCULI—Latin names, signifying the principal, sloping, or "*side-way*" muscle of the eye.

It has also been called "*longissimus oculi*," because of the greatness of its length, compared to the second oblique muscle, which, from its comparative shortness, was named *brevissimus oculi*.

This muscle is, in many respects, one of the most interesting in the body; and, as it offers a brilliant example of the mechanical wisdom of the CREATOR, demands our closest attention. It arises from the margin of the hole in the bottom of the orbit which transmits the optic nerve between the first and third straight muscles. From thence it runs round the ball of the eye, slantwise, to the great *canthus*, or inner angle of the eye-lids, in the upper side of which there is a cartilaginous ring, called the *trochlea*, through which it passes like a rope over a pulley, and, turning backwards, it proceeds between the first straight muscle and the ball of the eye, and, increasing in breadth, it is inserted into the sclerotic coat on the back part of the ball of the eye, near the abductor. When it acts, it rolls the eye about its axis, towards the nose, and at the same time draws it forwards, and turns the pupil downwards.



Side view of the Muscles of the Eye, in their natural positions.

a, b, c, d, the Four straight Muscles; (*a* is turned up to prevent the others from being hidden) *e*, the great Oblique Muscle; *f*, the Optic Nerve. (The second Oblique Muscle is not shown, but its situation may be inferred.)

The learned Dr. Paley, in speaking of a muscle of the same structure, which, in animals, assists in drawing a cleaning membrane over the eye to remove dust or other impurities, makes some valuable remarks, which, as they illustrate our subject, we shall quote. He says, after describing its "marvellous mechanism:"—"a muscle passed through a loop, and inflected, as if it were round a pulley. This is a peculiarity, and observe the advantage of it. A single muscle, with a straight tendon, which is the common form, would have been sufficient if it had had power to draw far enough. But the contraction necessary to draw the membrane over the whole eye, required a longer muscle than could lie straight at the bottom of the eye. Therefore, in order to have a greater length in a less compass, the cord of the muscle makes an angle, which perfectly answers the required end." Now this is also strikingly true of the great oblique muscle of the human eye,—the end, and the means used for its accomplishment, being, in both cases, precisely the same; for as

Cowper, in his *Myotomia Reformata*, has remarked,— "When any of the straight muscles contract, they would draw the ball of the eye inwards, was it not at the same time drawn outwards by some equal force," which is exactly what the great oblique muscle, assisted by its lesser companion, which we shall presently describe, is admirably qualified to perform. The superior strength of the straight muscles acting, be it observed, rectilinearly, and with a short distance, is thus beautifully counterpoised by a simple mechanical arrangement, in which the power of a weak muscle is doubled, and the disadvantages arising from the obliquity of its course and the awkwardness of its situation, are actually made to assist the very operations which they might have been expected to impede.

2. *OBLIQUUS INFERIOR OCULI*, or the *small sloping muscle of the eye*. It arises from the lower edge of the orbit, on the side next the nose, and passing obliquely and somewhat transversely backwards, it slips under the *deprimens*, and, spreading into a flat tendon, is inserted into the back and outer part of the sclerotica, directly between the *abducens* and the optic nerve. Its office is to roll the eye about its axis from the nose, and, at the same time, to draw it forwards, and direct the pupil upwards.

EQUILIBRIUM OF THE MUSCLES OF THE EYE.

This subject has been so concisely and pithily discussed by Durham, in his *Physico-Theology*, that we shall content ourselves by simply extracting a portion of his remarks:—

"Nothing," he says, "can be more manifestly an act of contrivance and design than the muscles of the eye, admirably adapted to move it any and every way; upwards, downwards, to this side or that, or howsoever we please, or there is occasion for, so as to always keep that parallelism of the eye which is necessary to true vision. For the performance of which service, the form, the position, and the due strength of each muscle is admirable. But what is most to be here noted is the exquisite equilibration of all the muscles, effected partly by the equality of the strength, which is the case of the *adductor* and the *abductor*, partly by their peculiar origin, or the addition of the *trochlea*, which is the case of the *oblique muscles*, and partly by the posture of the body and the eye, which is the case of the *attolens* and *deprimens*. By this so curious and exact equilibration, not only unseemly contortions, and incommodious vagations of the eye, are prevented, but also it is able with great readiness and exactness, to apply itself to every object.

"Seeing, then," says Ray, in his *Wisdom of God in the Creation*, "the eye is composed of so great a variety of parts, all conspiring to the use of vision, whereof some are absolutely necessary, others very useful and convenient, none idle or superfluous; who can but believe that THIS ORGAN WAS DESIGNED AND MADE PURPOSELY FOR THE USE FOR WHICH IT SERVES?"

(To be continued.)

ON AMUSEMENTS.

EVER since the period at which civilization collected men into cities, and, leading them from the unsocial and solitary life of the woods and wilds, taught them to cultivate commerce and arts, the filling up, in an agreeable manner, of the portion of time remaining from labour, has been a great study amongst them. It is to this necessity that

every one feels, of amusing the hours of leisure, that is owed no small portion of the elegant and polite arts themselves. Even the wild inhabitants of barbarous countries delighted, after the toils of the chase, to sing, in rude verse, the praises of their gods,—the exploits of war, and the fame of their chiefs; and, strange as it may appear, it is from such rude beginnings, that the divine art of poetry at first arose. In like manner do men still feel the necessity of an occasional remission from toil, and enter with eagerness into a multitude of pursuits, which they think calculated to afford them amusement. But, in the wide field of pleasures, that long ages of luxury have introduced, there are many that should be entered upon with much caution, and some that should be altogether avoided, by those who wish to experience real satisfaction from this source. For, from the choice of amusements that people make, is to be derived much of the happiness or misery of their life. There are some whose whole mind seems wrapt up in the endless acquisition of riches; and who appear to have room for no other ideas but such as tend immediately to the advancement of their favourite schemes. These make business their sole pleasure, and can taste no delight that does not bring with it its just ratio of profit. They are a degraded species in the moral order, and have few sympathies concerned in their existence, but of such as hope to profit by their end. The pursuits of ambition serve equally for a business and amusement to such as are raised to a height whence they may aspire, and feel themselves carried that way; but these must, in all ages, be comparatively few, since the multitude are necessarily removed to a distance from such designs. The pleasures that have by far the widest dominion over mankind, are those of the senses in their different kinds and modifications. Some of these are common to us with the rest of the animal creation; others seem to belong peculiarly to man. It is from the eye and the ear that the noblest gratifications of sense are to be derived; in the contemplation of the magnificent works of nature and of art, and in listening to the divine strains of harmony and song. If to these be added the supreme pleasures to be drawn from reason and imagination, as these are laid out for us in the works of genius, we are then furnished with the noblest sources of a refined and generous employment of leisure.

From various accidents of birth, education, disposition, and business, men acquire a leaning to different kinds of pleasure; nay, it not unfrequently happens that this bent is given them when at an age too young to understand its tendency or kind. The following lines describe some of these:—

“Some men do aim at diadems; and some
Bore the deep bowels of the earth for gold.
Some take delight in war, and thrill with joy,
When the clear trumpet sounds the shock of battle,
And up to the skies the maddening shout of death
Louder and louder swells, as swords and shields
And hissing javelin, in one mingled sound,
Rend the firm heaven. Some, skilled in arts of peace,
Tune the soft lyre, and cultivate the muse;
Led by a fond desire for empty fame;
Or rather, if the poet's voice be true,
By all unconquerable love of song.
Some dive in science, and run after truth
In never-ending, wild, and devious course:—
All aim at something, and all strive to pluck
Flowers, as they thus creep onward to the grave.”

Manuscript Tragedy.

But it is the part of every one, when arrived at an age for reflection, to weigh seriously the things in which he seeks his amusement, and to make such a choice as reason shall persuade. The seeds of taste are much more widely disseminated in our nature than it is commonly imagined; so that, in many instances where low sensuality has been suffered to triumph, a little cultivation might have lifted the individual from his miry bed, and exalted him, from mere animal enjoyments, to relish the nobler feast of reason and of soul. To a man of a refined and sensitive mind, scarcely any spectacle can be more affecting than to see his fellow-men,—beings originally endued with the same capacity for being virtuous and happy with himself,—led astray by a blind obedience to the lowest propensities of our nature into misery, and not unfrequently into crime. Ignorance and bad taste are generally the parents of drunkenness, and other low excesses of the senses; and where the former is wanting, the latter at least is always to be found. The difference between man is nowhere more apparent than in their amusements. It has ever been a characteristic of a superior mind to be sensibly alive to what is beautiful in nature and in art. Hence poets and painters take such delight in recalling the images of the external world, rendered still brighter and more beautiful, if possible, by the glowing medium of their fancy. It is true, a large portion of the inhabitants of cities, who are necessarily engaged the greater part of their time in business, can seldom have an opportunity of contemplating nature in her original splendour; but this very circumstance confers a still greater value on the works of those great artists who have known how to enrich our homes with her likeness, conveyed in the noble vehicles of painting and song. For such is the power of art, when skilfully conducted, that she can raise from her representations emotions as strong as those called forth by Nature herself; nay, even yet more powerful. Who does not feel the truth of this observation in reading some of the descriptions of our great poets? Who, were he even furnished with all the best means of observation, could have a more lively idea of the economy of an empire, than that given in Shakespeare's beautiful description, wherein he compares the government of a kingdom with that of bees?—

—“So work the honey bees;
Creatures, that by a rule in nature, teach
The art of order to a peopled kingdom.
They have a king, and officers of state,
Where some, like magistrates, correct at home;
Others, like merchants, venture trade abroad;
Others, like soldiers, armed in their stings,
Make boot upon the summer's velvet buds,
Which they, with merry march, bring home again
To the tent royal of their emperor:
Who, buried in his majesty, surveys
The singing mason building roofs of gold,
The civil citizens kneeding up the honey,
The poor mechanic porters crowding in
Their heavy burdens at his narrow gate,
The sad-eyed justice, with his surly hum,
Delivering o'er to execution pale,
The lazy, yawning drone.”

In short, the pleasure to be derived from the works of such authors is extremely great and noble, both for them who have sweet experience of the beauty of nature in her own person, and for such as can seldom see her but as she is reflected from the mirror of genius. For us, we have wandered much among groves and meadows, and loved

the side of the lake and the stream; and sweet, very sweet, is the memory of the days thus passed; for still, while engaged in the ceaseless turmoil of this boundless city, do our thoughts often recur to the gentle scenes we have left, in some such feelings as this:—

"O lay me by the waters
When the silver dew-drops rise,
To gem Earth's verdant daughters,
With radiance like the skies.

O lay me by the willow,
When the garish day is fled,
The green grass for my pillow,
And the red sky over head.

"I love to hear the vesper
Steal up that peaceful sky,
When Eve's spirit to pale Hesper
Begins her melody;
A cadence soft and holy
As the gentlest song of earth,
Too blithe for melancholy,
Too calm by far for mirth."

Such are the pleasurable feelings that the contemplation of Nature calls forth. But as our tastes are as varied as our constitution and temperaments, so is there such a variety in the amusements befitting rational beings as cannot fail to engage them all. Where situation and time permit, there are several sports exacting a vigorous exercise of the body, that fill up a leisure hour with much benefit to the health; but the leading character of our recreations should be always intellectual. Ten thousand works of history, travels, fiction, science, and song, all excellent in their kinds, wait upon our leisure, and are ready to afford us a safe shelter from *ennui* and excess. Then what a pure and inexhaustible fountain of delight is music! Though Lord Chesterfield, in his mincing and contemptible instruction to his son, thought fit to condemn as illiberal in a gentleman the practice of an instrument, happily the world has not fallen in with his opinion. On the contrary, perhaps at no period did the accomplishment of music receive so extended and diversified a patronage as it has at the present day. People of almost all classes and professions, delight to meet for the purpose of showing their devotion to this generous and spirit-soothing recreation; nor while the eternal laurels of the great masters of harmony shall flourish, is it probable that men will forget to admire their works. The duo, the trio, and the quartett may deservedly be looked upon as among the best friends of social recreation we have; for while they are so refined in themselves, it is no small addition to their claims upon our admiration that they necessarily bring together similar tastes and sympathies, and in so doing afford a sure foundation for real and lasting engagements. All men, however, have not a musical ear; and all are not alive to the excellence of the works of genius, yet few are so dead to the pleasures of the eye and the ear as not to taste them in some degree. He who is but little affected with a noble picture, may possibly admire the simplicity of a flower garden; and be delighted with the singing of a bird, though he has no relish for the deep and flowing melodies of a Mozart or a Weber. Many excellent characters have been remarkable for their attachment to the garden; not that they were dead to the other sources of amusement already mentioned, but had in addition this highly intellectual fountain of pleasure. "The most exquisite delights of sense," says Sir William Temple, "are pursued in the contrivance and plantation of gardens; which, with fruits, flowers, shades, fountains,

and the music of birds that frequent such happy places, seem to furnish all the pleasures of the several senses, and with the greatest, or at least the most natural, perfections. Thus the first race of Assyrian kings, after the conquests of Ninus and Semiramis, passed their lives till their empire fell to the Medes. Thus the caliph of Egypt, till deposed by their Mamalukes. Thus passed the latter parts of those great lives of Scipio, Lucullus, Augustus, Diocletian. Thus turned the great thought of Henry the Second, of France, after the end of his wars with Spain. Thus the present king of Morocco, after having subdued all his competitors, passes his life in a country villa, gives audience in a grove of orange trees, planted among purring streams. And thus the king of France, after all the successes of his councils or arms, and in the mighty elevation of his present greatness and power, when he gives himself leisure from such designs or pursuits, passes the softer and easier parts of his time in country-houses and gardens, in building, planting, or adorning the scenes, or in the common sports and entertainments of such kind of lives. And those mighty emperors who contented not themselves with these pleasures of common humanity, fell into the frantic or the extravagant; they pretended to be gods, or turned to be devils, as Caligula or Nero, and too many others known in story." In another place, still speaking of the use of gardens, he says, "As it has been the inclination of kings, and the choice of philosophers, so it has been the common favourite of public and private men, a pleasure of the greatest, and the care of the meanest; and, indeed, an employment and a possession for which no man is too high nor too low."

Such are the occupations of leisure that are worthy the notice of a rational being; and if to these be added the charms of a liberal and enlightened converse of friends, where no entrance shall be suffered to the malevolence of detraction or the animosity of party feeling, it would seem that a man possessing all, or any of these noble recreations, could be in no situation to envy the wild riot of the licentious, nor the listless vacuity of the trifling and the vain. That much of this refined relaxation is now placed within every one's power, is a subject of great rejoicing. The rapid dissemination of knowledge and literature, in a shape to meet the necessities of all classes, cannot fail, as we confidently hope, of soon producing effects at once astonishing and delightful. Then shall the sensualist turn from wallowing in the mire, and all men cease to forget the superiority of their nature. The sun of intellect and genius shall shine forth over our land, and virtue spring up with tenfold vigour beneath his resuscitating beams.

ANIMAL INSTINCTS.

THERE is something astonishing in the invariable exactness with which all kinds of animated creatures pursue the course which is best adapted to their interests. The instinct of some animals is so striking and so complete as almost to lead us to imagine that those who display it must share some portion of that intellectual endowment which maturer reflection convinces us is bestowed only upon favoured and ingrate mankind. Every bird, and even every insect, deposits its eggs in that precise situation which is especially adapted for producing their young, and giving them facilities for procuring them nourishment when produced.

The fly, which subsists upon vegetable juices, is never

known to deposit its eggs upon an animal substance; while, on the other hand, the eggs of the insects which require animal food for their subsistence are invariably deposited upon flesh. Whence is this unvarying attention of unthinking things to fitness, propriety, and expediency? Whence but in the admirable instinct which the Creator has bestowed upon them, and which they follow not consciously yet unerringly?

In the care of their young, the inferior animals are unsurpassed even by the strong love of the mothers of human kind. What creature is more timid than the domestic hen? Yet when she has her young progeny around her, she will face the largest and most savage bird or beast. Gathering her young chickens around her, she flaps her wings in anger and will combat for them with the greatest fury to the very last. Yet when these same chickens, for which, contrary to her usual habits, she can boldly dare and do so much, have grown up, she will not even recognize them from the offspring of another hen, and will dispute with them, as with any others of her kind, the possession of a single corn of barley. Does this, at first sight, seem to be an inconsistency? That is only because we take a wrong view of the subject; a merely partial view instead of a complete one. Her instinct prompts her to affection and care as long as it is necessary to the preservation of her young. The continued existence of the brute creation depends upon this instinct. If the young were not fostered and protected during their helplessness, they would perish of want, or be destroyed by violence, as soon as produced. The old ones, on the other hand, would in time perish of age and infirmity, and thus kind after kind would disappear from the face of the earth.

But the instinct implanted in the inferior animals is infallible; and is the director of their conduct. But when the occasion for a certain line of conduct no longer exists, instinct ceases to prompt the animal to it. When the chickens are able to defend and to provide for themselves, the purpose of the hen's maternal feelings no longer has any existence, and the instinct prompting her to them, lies dormant until it is aroused again into activity by the presence and the wants of a new brood.

A very important reflection ought to suggest itself to us on our noticing the instincts of the brute creation. And to a well regulated mind that reflection will have all the force of a written law.

Independent of that feeling of diffusive benevolence and of humility of heart which a right and earnest contemplation of the works of God upon our globe is calculated to engender, we ought, on observing the mingled power and goodness with which God has made provision for the necessities of even the humblest creatures that have life, to feel ourselves loudly and expressly called upon in His voice to abstain from torturing those whom he has condescended to create and wonderfully to endow. He has submitted the brute creation to man. We are to use his gift with thankfulness; but we grossly and ungratefully abuse the power which he has delegated to us whenever we torture even the meanest or the most unsightly thing which has life.

HISTORICAL AND BIOGRAPHICAL MEMORANDA OF MAY.

May 11th, in 1822, died *Abbé Sicard*, aged eighty. We record him as the director of the interesting institution for the deaf and dumb at Paris, and the worthy successor of the *Abbé De L'Epée*. It was upon the model of his school that almost all similar institutions were formed; and the exercises of his pupils were objects

of curiosity with all foreigners on their arrival at Paris. An institution for the same purpose has been long established in the Dover Road, near Surrey Square, Walworth; the pupils of which make an astonishing proficiency in the art of communicating and exchanging ideas; and as this is a curiosity in the work of instruction, we may, if space will allow, at some future time give an ample description of the mode adopted to teach the pupils, and also of the accommodations that are provided for them by the benevolent directors.

May 12th, in 1429, the siege of Orleans was raised by the French, through the confidence with which they were inspired by *Joan of Arc*, a young shepherdess, who pretended a mission from heaven for that intent. The French historians say that 8000 English were cut to pieces on this occasion, they being paralyzed by superstition; but the English writers admit of 600 only. This juvenile heroine, who was only twenty-one years of age, fell into the hands of the English at the siege of *Compeigne*, the 25th of May, 1430, and was inhumanly burnt as a sorceress at *Rouen*, on the 30th of May, 1431. Thus the month of May seems to have been peculiarly concerned in her fortunes.

On this day, in 1640, the *Earl of Strafford* was beheaded. He was a nobleman of great endowments by nature, and possessed a mind of high magnanimity; in fact, he tendered his life to save his sovereign, and to heal the breach between *Charles I.* and his subjects, which, however, was ineffectual; and perhaps the catastrophe that followed was rather accelerated than retarded by his death. It often occurs in times of popular commotion, that the best men are the first to suffer.

May 13th, in 1822, died *James Basire*, aged fifty-two, an engraver to the Royal Antiquarian Society. He executed many splendid works, particularly the English cathedrals, after the drawings of *Mr. John Carter, F.S.A.*

May 14th, in 1264, the battle of *Leiris*, in which *Henry III.* was defeated by the earl of *Leicester*, and taken prisoner with his son, brother, and nephew. *Prince Edward*, the king's son, he shut up in *Dover Castle*, along with *Henry*, son of *Richard*, the monarch's brother, and then confined *Richard*, who was king of the *Romans*, in the tower of *London*; but he carried *King Henry* about, through all the cities of the kingdom, as a sanction for all his ambitious projects, absolutely exercising the sovereign authority in the king's name; and this he carried on a whole year.

May 16th, 1536, *Anna Boleyn* was beheaded, through the malice of her religious opposers, and the jealousy of *Henry VIII.*, her husband. She was the mother of *Queen Elizabeth*; and as it is supposed, she could have exposed much of the court intrigue on the scaffold; but the fear of drawing down vengeance on her daughter *Elizabeth*, imposed on her a silent submission. Several other persons were accused and condemned, in order to give a colour to this inhuman transaction.

On this day, in 1655, *Admiral Penn* took *Jamaica*. *Penn's* squadron was sent, by *Oliver Cromwell*, against *Hispaniola*; but failing in that attempt, the admiral sailed to *Jamaica*, and took it with little difficulty.

May 17th, in 1723, *Layr*, a barrister, was hanged at *Tyburn*, and his head fixed over *Temple Bar*; having been convicted of enlisting men for the pretender's service, in order to excite a rebellion; and of a design to seize upon the *Tower of London*, the *City Gates*, the *King's person*, &c. The watchword was to be "this morning."

May 18th.—*WHIT SUNDAY*.—The catechumens, who were then baptized, and also at *Easter*, appeared in the ancient church in white garments; hence its name of *Whit* or *White Sunday*, *Munday*, and *Tuesday*, are now, as holydays, almost obsolete. *Whitsuntide* is, however, still noted in many parts of *England* as a time for hiring servants.

May 19th.—*St. DUNSTAN*.—Many curious miracles are imputed to this sainted mortal; he was successively bishop of *Worcester*, *London*, and *Canterbury*; and what was, perhaps, quite as valuable in his day, an excellent tinker and blacksmith.

On this day, in 1692, the combined *English* and *Dutch* fleet, commanded by *Admiral Russell*, in the reign of *William III.* gained a complete victory over the *French* fleet, which they almost annihilated; and a great number of their transports were burnt in the harbour.

May 20th, in 1420, *Henry V.*, king of *England*, declared sole heir to the crown of *France*, by the treaty of *Troyes*, in *Champagne*, and proclaimed regent of that kingdom, to the exclusion of the *Dauphin*.



PLAN OF MANCHESTER.



MANCHESTER.

THE name of this place implies a Roman station; and it has been satisfactorily proved by the learned historian of *ancient Manchester*, that the Romans possessed an important military post on the banks of the rivers Irwell and Medlock, which unite their streams at this part.

This town is situated at the southern extremity of Lancashire, in latitude $53^{\circ} 22'$ north, and in west longitude $2^{\circ} 42'$; distant from London 185 miles. The Irwell joins the Mersey about 7 miles from its junction with the Medlock, and is navigable to Liverpool for vessels of fifty tons burden; but the convenience of water-carriage has become of less consequence than it was, previous to the recent construction of the iron railway, which now conveys goods and passengers to and from Liverpool with great safety, uncommon speed, and cheapness too, being circumstances of great importance to merchants, manufacturers, and commercial travellers. The river Irk, which unites with the Irwell, north of the town, has many mills on its banks. The Bridgewater Canal extends from hence to the coal mines at Worsley, Walkden Moor, &c., and to Preston-brook, where it joins the grand trunk navigation, which falls into the Mersey at Runcorn. There are also other canals to Bolton and Bury, to Ashton-under-Line, Staley Bridge, the Peak Forest, Rochdale, and Sowerby Bridge. With all these facilities and advantages for the transit of its manufactures over the country, it is no wonder that Manchester has attained to the rank of the second town in England, especially as these advantages have been made available by the genius and industry of its inhabitants. The history of Manchester contains much to gratify the antiquary, though the town, like Liverpool, is itself of modern growth; and indeed we may not unaptly call these two boroughs and trading towns the *Lancashire Twins*. The former (certainly the elder) consists of a great number of streets, lanes, and alleys, which are crowded with factories, warehouses, and shops; yet, notwithstanding this, and its low and rather marshy situation, Manchester is not unhealthy; some of the natives live to old age; and an accurate narrator says, that the bills of mortality exhibit a far greater number of births than of deaths.* Though in a low situation, and surrounded by streams of water, Manchester is in general rather deficient in that useful article, and most of the houses are provided with cisterns to receive the rain-water from the roofs, which the housewives use for washing, and sometimes for culinary purposes. There is, however, one draw-well in the town, which is properly enclosed, and only open when actually in use. A public company was incorporated by Act of Parliament, and pipes were laid down from a reservoir about two miles from the town: the supply of this reservoir was by stone pipes, which frequently burst, and occasioned much inconvenience as well as expense to the proprietors. Among the modern improvements, we hope to find this defect removed. Manchester is surrounded by coal mines, except on the south side, where there are peat bogs, from which *turf* or peats are dug and dried for fuel; at Haigh, near Wigan, that brilliantly flaming combustible called *Cannel* is produced; its bituminous quality, and clean property, make it highly esteemed. As above noticed, this important town furnishes us with considerable historical data. In the opinion of Mr. Whitaker, it was a British station 500 years before Christ; but those stations were then only fastnesses, barricaded with fallen trees, and formed for defence where nature had made them of difficult access, by rivers, marshes, or other obstructions: before the invasion by the Romans, there was nothing like our modern town; but the assemblage of so many persons in this place, gave birth to the British stronghold called Mancenion; in the year 79 it was conquered by Agricola, who changed its name to Mancunium, afterwards Manduesuedum, and Mancestre, from which, no doubt, its present name is derived. The Romans built a castle on the site of what is now called Castle-field, near the conflux of the Medlock with the Irwell. The protection afforded

by a castle, gave rise to a town which probably extended as low down as St. John's-street, Aldport town forming part of it, and which obtained that name on building the new town, about 920, when Edward the Elder gave orders for fortifying the city (as it was then called) of Mancestre. The foundations of this castle are still visible, inclosing about twelve acres; but no other traces of the Romans appear to an ordinary observer. The whole of the land where it is supposed that the ancient town of Mancunium stood, has no appearance of having been appropriated to agricultural purposes. During the time the Romans kept possession, they formed a summer camp upon the high ground which overlooks the junction of the rivers Irk and Irwell; and they conducted a foss from the former along a street now called Hanging-ditch, throwing a drawbridge over it towards the castle; one of the arches of this bridge is distinctly seen from the back window of a hair-dresser's shop. The summer camp of these warlike people was sufficiently fortified to repel any force the Britons could bring against it. The Roman road from this station to Ribchester, is easily traced over Stony Knolls on the footway to Kersall Moor, and from thence to Prestwick.

On the evacuation of Britain by the Romans, they left this castle and appendages to the natives, from whom it was soon won by their treacherous auxiliaries, the Saxons; the latter, electing a chief, held it until the Danes, ravaging the kingdom, dispossessed them, and almost destroyed Manchester as well as many other towns.

About the year 920, the then lord of the manor built a new church, which was dedicated to St. Mary, and made jointly parochial with the old one called St. Michael; a few houses were then built on the way to them from the baronial court, on Hunt's Bank: these houses were the origin of Dean's Gate, and of that still called St. Mary's Gate. The next houses that were built would probably be on the margin of a field appropriated by the lord for a market-place, and by degrees houses were erected on every side. The street called Old Mill Gate, evidently had its name from being the way to the mill in Cateaton Street; it acquired the appellation of old, when the water of the foss was turned into the ancient channel in the bed of the Irk, on which a second mill was erected, and gave the name of Long Mill Gate to another street. All those erections and additions in process of time increased the extent of Manchester, and subsequent building has enlarged it to its present magnitude. In 1313, Ihon de la Warr, Knt., was lord of the manor and patron. The last male heir of this family was in holy orders, and was the rector of Manchester; he procured a licence in the ninth year of Henry V. 1429, for forming a collegiate church in the town, which consisted of a warden and eight fellows, of whom two were parish priests, two canons, and four deacons; two clerks, and four choristers. The founder is said to have endowed it liberally, bestowing the value of twelve lordships on this and other pious foundations. All these churches were of wood, and probably soon went into decay; but, in the reigns of Henry VI. and VII., the erection of the new church would necessarily cause new buildings, and possibly gave rise to Fennel-street, the upper end of Long Mill Gate and, perhaps, the houses in Toad's Lane and Hyde's Cross. There is reason to suppose, that about this time, Hanging-ditch was drained, and that houses were then built on a situation that for some hundred years had been the bed of a river. At the commencement of the sixteenth century, Hugh Oldham, bishop of Exeter, a native of Oldham, in Lancashire, and who died in 1519, founded the grammar school. The college of Manchester was dissolved by Act of Parliament, the first of Edward VI., and the lands demised to Edward, earl of Derby, who, however, kept several ministers to officiate in the church. Queen Mary refounded the college, and restored the major parts of the lands, the earl of Derby retaining the collegiate house (now Cheetham's Hospital) and some lands of inconsiderable value. In 1578, the twentieth of Elizabeth, a new foundation was given to this college, which was then incorporated

* J. Aston, *Picture of Manchester*, p. 3.

by the name of Christ's College, in Manchester: at this time the town was stated to have ten thousand inhabitant parishioners. A dispute arising between the steward of the manor and the town, about choosing a borough-reeve, perhaps determined Lord de la Warr to dispose of his right; for, in 1579, he sold the manor of Manchester to Sir John Lacye, of London, citizen and cloth worker, for 3000*l.* who, in the year 1596, resold it, for 3,500*l.* to Sir Nicholas Mosely, Knt., who had been sheriff of London in 1591, and was lord mayor in 1599. Manchester was twice visited by that terrible scourge—the plague; first, in 1605, in the reign of James I. and again, in 1645, which raged with incredible violence, and reduced the poor to great misery and want; and a collection was made, by order of parliament, in all the churches of London and Westminster to alleviate the sufferings of the unhappy people.

In the reign of James I. SALFORD, which is connected with Manchester by a bridge across the Irwell, had become a populous place; it was entirely rebuilt in the middle of the eighteenth century. In the dispute between Charles I. and his parliament, Manchester took part with the latter, and the town was taken possession of by the county militia. Fortifications were thrown up at the ends of the streets, and proved effectual for defence. In September, 1642, the earl of Derby attacked the town, from Salford, with 4,000 infantry, 300 horse, and 7 pieces of cannon; but he was not able to force the bridge, and retired with considerable loss. In the course of the next year the town was better fortified and garrisoned.

At the coronation of Charles II., in 1661, a military procession took place, in Manchester, in honour of the day; a public dinner was given, and the conduit was made to run with claret instead of water.

In 1708, an act was obtained for erecting St. Ann's Church; and, soon after, St. Ann's Square was built. About the year 1735, the lower part of King Street was formed, and the upper end some years after. In the year 1753, a third church was founded, and was called St. Mary's. In the year 1758, the trade of Manchester had improved greatly, and one person had risen to such opulence, as to be rich enough to keep a coach; before that time no tradesman kept any vehicle of that kind. In 1808, a regular and permanent stand of hackney coaches was established. At the coronation of His Majesty George III., a procession took place in Manchester, under the superintendence of the magistrates, in which the principal trades walked, with suitable dresses and colours; they were arranged in the following order, namely, tailors, wool-combers, worsted-weavers, shoemakers, dyers, joiners, silk-weavers, and hatters. The cotton trade does not appear in the list; it is therefore apparent, that this staple manufacture of the whole kingdom was then in its infancy; and that the invention of machinery has brought it to its present state of perfection and importance. From the period of which we are now speaking, and the application of machinery to the manufacture of cotton, Manchester has made such rapid improvements as perhaps to be equalled by no other town in the world. Churches, chapels, places of amusement, squares, streets, and manufactories, have started into existence, with a rapidity which, to an occasional visitor, might seem the effect of enchantment. In 1776, an act was obtained for widening the streets, near the centre of the town, and a subscription was raised to carry on the work; before this time, Cateaton Street, Old Mill-gate, and St. Mary's Gate, were only wide enough for a single carriage to pass, and the present Exchange Street was a collection of old houses; in fact, some of the streets were dangerous and filthy, and, consequently, the houses were unwholesome. In 1792, the Exchange was taken down; it had long been useless, and was become a public nuisance; on the site, a stone edifice was erected, to support a clock, and the area of the former structure was marked by posts; the king's arms, on the north, and those of Manchester on the south, were made to decorate the sides of this erection; and, on the west, the names of the municipal officers are inscribed, who held their appointments during the year in which it was reared. The new Exchange was finished in 1809. The public news-room, called the Portico, with the library, was opened in 1805. To give a stranger an idea of the present extent of Manchester in a few words, we may remark, that, with its recent improvements and additions, the aggregate length of all the streets together, cannot be less than from sixty to seventy

miles. The cause of the prosperity of this important town is obviously the ingenuity and industry of its inhabitants; but, to trace the progress of its manufactures, and the inventions that have aided them, from time to time, would require volumes. Limited, however, as our space is, we think it incumbent on us to mention some of the chief circumstances connected with this trading phenomenon; and this we do for the information of those whom the current of time has removed, and is still further removing from the sources of intelligence on the subject. The first successful attempt to spin cotton by machinery, was made by a person of the name of Hargrave, of Blackwell, in Lancashire, who constructed a machine which he called a jenny, and by which a single person could spin from twenty to forty threads at one time. These machines, in a short time, became very general; and upon them was produced the web, or shute, of which the various kinds of cotton goods were made, the warp or webb of these goods was almost universally linen, until it was discovered, that by uniting two of the threads, produced by the jenny, and twisting them together, an excellent substitute was provided for linen yarn, used heretofore for warp. The late Sir Richard Arkwright, after many experiments, finished his first engine in 1768, and, in the following year, took out a patent; but several new ideas suggesting themselves, and great improvements being discovered, by the practical application of the machinery, Sir Richard took out a new patent in 1775. From this time the invention became generally used; and not Sir Richard only, but many others, became rich by its adoption.

After the expiration of Sir Richard Arkwright's patent, the spinning of yarn, and manufacture of cotton goods, rapidly increased; mechanics were successfully employed to abridge labour; and no difficulty or competition appeared of so formidable a nature as to defeat the genius and industry of those who were engaged in the trade. The beating and cleaning of the cotton in its raw state prepares it for carding, a process that requires no particular description; it then undergoes stretching, or roving, on a machine resembling the mule, by which it is to be spun; these mules carry three hundred spindles, and are adapted to the power of steam engines and other mechanical motions. Calicoes were first manufactured in Lancashire in 1772; and muslins, now principally fabricated at Glasgow and Paisley, in 1781. In the year 1785, Messrs. Peel and Yates employed 6,800 persons in the manufacture of cotton; and the whole number employed in Lancashire, Cheshire, Derby, Nottingham, and Leicester, was computed at half a million. We have now, perhaps, said as much of the history of Manchester and its manufactures as will be interesting to our readers; but there remains yet to be noticed, its public buildings, literary and charitable institutions, population, and municipal government, with the seats of the nobility and gentry, and other beauties that abound in its environs; as to the living beauties, namely, the Lancashire witches, we might omit them, their personal endowments being so well known, that to speak of them is like a tale told ten thousand times; for this reason, probably, we do not find them mentioned by the elegant writers of the "*Beauties of England and Wales*."

PUBLIC BUILDINGS.

In an account of the public edifices which adorn a great manufacturing and commercial town, such as Manchester, we hope it is no transgression of decorum or propriety, to begin with one expressly devoted to the convenience of trade. We, therefore, give priority, in point of position, to the new Exchange, and its connected apartments. On the 21st of July, 1806, the first stone of this structure was laid by George Phillips, Esq., attended by the constables and many of the subscribers, amidst the plaudits of a great concourse of people, who concluded the ceremony by the hearty old English way of expressing approbation—*three times three*. A marble vase containing several coins of George III., and medals of Lord Nelson and Mr. Pitt, was inserted into the stone. Early in 1808, the part intended for the post office was opened; and the news room, the 2d of January, 1809; subscribers soon multiplied, from the adjoining districts as well as the town; the former at one guinea, the latter at two guineas per annum. The structure is of Runcorn stone, in the Doric order, the north front being in the form of a semicircle. The columns are fluted, and are twenty-seven feet high. The arms of Lord Dacre, on whose estate it

was built, are carved on the upper pannel of the cornice, on that side which is approached from Exchange Street; and those of Manchester are over the north door. The smaller windows and sky-lights in the attics, light small rooms occupied as offices, or ware-rooms for country manufacturers. The exchange room is very elegant; it occupies the whole of the north front; it is lighted by plate glass windows to the front, and a semi-dome light over the centre. Opposite the north door is a capital clock, by Roskill, and a wind dial, under which is a handsome colonnade with a fire-place in the centre; there are two other fire-places in the room; all these have elegant marble chimney pieces, and the whole of the furniture is in correspondence; the tables are supplied with most of the London, and several provincial, newspapers. The Exchange is open from seven in the morning till ten at night. The area of this magnificent room is 4060 feet; nothing could have been better designed than this Exchange, with its attached and contiguous conveniences; the Post Office, being one of the chief, forming part of the building, thus bringing the business and correspondences of merchants into a centre. The dining-room is attained by a geometrical staircase of thirty-seven steps; it is ninety-two by twenty-nine feet, and can be enlarged, by removing a sliding partition, that separates it from an adjoining apartment; on the north side there is a small orchestra for musical performers, when a ball is given. The direction and management of the whole is invested in a committee of twenty-one, chosen annually.

CHURCHES.—There are, in Manchester and Salford, more than a dozen churches, among which the *Collegiate*, or *Christ's Church*, seems to claim particular notice. This truly venerable pile seldom fails to attract the attention, and command the admiration, of the antiquary and the man of taste. It is built in the rich gothic style of architecture, which distinguishes the buildings of the 15th century. It has a handsome tower, in which are eight capital bells, a set of chimes, and a clock with four faces. The stone of which the whole is built, is probably that of Collyhurst; and, very much to the credit of the successive wardens, the necessary external repairs have generally been executed in reference to the original style of architecture. The edifice is considerably larger than some cathedrals; and there are few that can fairly claim a superiority, in general harmony of design, excellency of workmanship, and state of preservation. Notice has been already taken of the various foundations which the college of Christ's Church has received from different monarchs; but a few other circumstances deserve to be recorded. The founder, Thomas Lord de la Warr, endowed the college, and built the Collegiate Church, which is also the parish church. It appears that he was in orders, being the rector of Manchester, and afterwards bishop of Durham. The first warden was Sir John Huntington, and he continued thirty-six years in that situation. He was buried in the choir; the stone, with the brass effigy and plate, which had been placed over him, was removed to the vault, when the present marble pavement was laid down; over the head of this brass effigy was written, "*Domine Delaxi Decorum, Domus tua.*" The second warden was Sir John Booth, deprived and fined by Edward IV. for having taken part with the House of Lancaster. His successor was Ralph Langley, the rector; he gave the first chimes to the church, and added more bells. In 1485, Sir James Stanley was warden; he was bishop of Ely, and brother to the earl of Derby; and he added two chapels, now called after the title of the head of the Stanley family, besides other conveniences and ornaments. The chapter house was probably built by the contributions of various persons. Several chapels were subsequently built, by individuals, but the history of them is not important to our general purpose, in this description of the Collegiate Church. In 1509, it seems that Richard Cliffe, B. D. acted as *locum tenens* for Sir J. Stanley. In 1518, Sir George West was warden; and, 1535, Sir G. Collier; but, refusing the oath of supremacy, he was removed by Edward VI. Queen Mary restored him; and at his death, in 1559, he was succeeded by Sir Lawrence Vaux, B. D., whom Queen Elizabeth dismissed. William Birch, B. D. held the office a short time, and was succeeded by Thomas Herle, one of the queen's chaplains, in whose wardenship the first registrar of births, marriages, and deaths was begun, for the parish of Manchester, and a total change made in the state of the college, which received a new foundation, under the wardenship of his successor, John Walton,

D. D. in 1578. William Chatterton, D. D. followed; and was succeeded by John Dee, M. A. commonly called Dr. Dee; so great was his learning, that the common people imbibed a notion that he was a conjuror, and, in their fury, seized his library, and compelled him to fly the kingdom. James I. gave the office to Richard Murray, D. D. a Scotchman, whom Charles I. deprived, and again refounded the college, its revenues having been wasted by Murray; the new charter was dated September 30, 1635. Richard Heyrick, B. D. was the first warden on the new foundation; the statutes of which abridged the power which that officer formerly possessed. Leases, in future, were to be limited to twenty-one years, instead of three lives, and the fines were, for some time, applied to the repairing and beautifying the church, which had been suffered to fall into decay, while its ministers had been scrambling for its revenues. Heyrick was suspended during the interregnum, but was reinstated at the restoration. Dr. Stratford was warden, but resigned, in 1684; and, five years afterwards, was made bishop of Chester; since this time, we have the names of Richard Wroe, a man of admired eloquence, a native of Ratcliffe; Samuel Peploe, D. D. vicar of Preston, who resigned in favour of his son, S. Peploe, LL. D.; Richard Ashton, appointed by George III.; Thomas Blackburn, vicar of Wareham, succeeded Ashton in 1798. So far we trace the history of this church, principally on account of that history being so much connected with the general history of the town. It now remains briefly to mention some of the beauties that adorn its interior. The inside of the church is solemnly grand. The windows, particularly those of the choir, have many remains of the painted glass, with which they were anciently ornamented, and which has escaped spoliation, and withstood the fury of the wintry storms of more than three hundred years. The roof is of rich net-work, embellished by a number of carved angels playing upon different instruments; many of the monuments are very handsome and characteristic; and the choir, especially when entered from the body of the church, presents a sublime architectural view, and fills the mind of a spectator of taste and sentiment with devout admiration and sublime pleasure. We really wish that our limits would allow us to go into a detail of the various interior ornamental parts of this sacred edifice, but in this wish we cannot be indulged, other structures claiming our divided attention; the building covers a space of ground about 232 by 147 feet, and late improvements have rendered it exceedingly conspicuous.

Trinity Chapel, Salford, is a neat stone edifice, of the Doric order, with a Gothic steeple, in which are six very musical bells, and a clock with two faces; under the west clock-face are some singular decorations: a gilt crown surmounting a rose, which is circled by a garter with the accustomed inscription. Beneath are a harp and a thistle, emblematic of Ireland and Scotland, as the rose is of England. At the east end of the church is a niche, intended for a statue of Charles I. in whose reign, in 1635, the original church was founded by Humphrey Booth, Esq. who endowed it with lands in Pendleton to the then yearly value of 48*l.* and a chief rent 2*l.* 10*s.* arising from the Ancoat's estate. The steeple was built in the last century. The bells were hung in 1748, but their vibration was so violent that a part of the body of the church fell down, and the whole of it was taken down and rebuilt in 1752. The inside of this church is well paved and pewed, and kept neat and clean. There is a good and handsome organ in the front gallery, and beneath it the arms of England. The living is a perpetual curacy, in the presentation of Sir Robert Gore, Bart.

St. Ann's Church.—This building is situated at the south side of the square to which it gives name. It has a tower-steeple, with one bell only. It had formerly a cupola, in some degree corresponding with the rest of the building, but which being in a bad condition, and thought dangerous, was taken down in 1777, and a spire erected, by subscription, in its place; this spire, however, being deemed also dangerous, was taken down and a few yards of stone-work added to the original tower, on which the spire had been placed. It is much to be regretted that the stone used for the ornamental parts proved so perishable in its nature. The foundation of this church was laid by Lady Ann Bland, of Hulme-hall, on May 18, 1709. It was consecrated July 17, 1712, and dedicated to St. Ann, in compliment to the lady who had laid the foundation, and who was the greatest contributor to it. The

register of the baptisms, marriages, and burials at this church, until December 1, 1736, was kept at the mother church, from that time it has been regularly kept here. In addition to the service on Sundays, prayers are read on all other days throughout the year. The seats will accommodate 1175 persons. The living is a rectory in the gift of the bishop of Chester.

St. Mary's Church, situated between Dean's gate and the river Irwell, is of the Doric order; it has a spire steeple 160 feet high, deservedly admired for its elegance and fine proportions, though faulty in point of architectural regularity, being of no acknowledged order. The lantern is particularly striking. It is composed of eight Ionic pillars, which support the spire, surrounded by a large globe, upon which, instead of a wind vase, is placed a massive cross, which, as well as the globe, is gilt. The inside of this church is handsome and comfortable, with seats for 997 persons. The grave-yard is enclosed by pallsades, and kept neat and clean. The living is a rectory, in the gift of the warden and fellows of the collegiate church. It was consecrated Sept. 29, 1756.

St. Paul's Church.—This edifice is next to St. Mary's in the order of consecration, having received that sanction July 23, 1765. It is situated at the east end of Turner Street, and most disagreeably closed in by surrounding houses; the walls are of brick. The steeple was built many years after the church, and is tolerably handsome. It is composed of stone, and contains one bell. The church will afford sittings for 1147 persons. It is a perpetual curacy, in the presentation of the warden and fellows of the collegiate church.

St. John's Church is a handsome modern Gothic building, surrounded by a spacious cemetery, situated between Higher and Lower Byrom Street. It has a tower containing a musical peal of eight bells, and a clock which faces four ways. Both the outside and inside of this church preserve an uniform Gothic appearance, which does great credit to the taste of the munificent founder, the late Edward Byrom, Esq. son of the celebrated J. Byrom, M.A. author of a system of short-hand, of two poems, several papers in the Spectator, and other periodical works. The inside of this church is embellished with some fine paintings of scripture pieces. One of the south windows, which was brought from a convent at Rouen, in France, represents the entrance of Christ into Bethlehem, painted on glass. The church is vaulted entirely under the whole; the vaults are the property of the heirs of the founder. The churchyard is very extensive, and almost entirely covered with grave stones. The ceremony of consecration was performed in this church July 7, 1769. The presentation of St. John's is by act of Parliament, vested in the heirs of the founder, but we believe it has fallen, or will fall, to the warden and fellows of the collegiate church.

St. James's Church, in George Street, is a large handsome brick building, with a neat but diminutive stone spire, surmounted by a gilt globe and cross, beneath which hangs a small bell. The congregation is very numerous. This church was consecrated August 18, 1787. It was built by the late Rev. Cornelius Bayley, D.D. in whom and his heirs the presentation was vested for sixty years, from the date of the consecration deeds, and after that period it becomes vested with the warden and fellows of the collegiate church.

(To be continued in an early Number, with an Engraving of the Manchester Royal Institution, and interesting statistical information.)

OF METALS.

METALS, properly so called, are six in number, viz. gold, silver, copper, iron, lead, and tin.*

The heaviest, purest, most valuable, and most ductile of these is gold. Like the other metals it is found in mines, some of which exist in all parts of the world; but in Europe they are fewer in number than in either of the other great divisions of the earth. In many countries of Asia, Africa, and America, considerable quantities of particles of this precious and beautiful metal are found in

the sand and slime which lie at the bottom of the rivers, whither they are probably carried by the mountain torrents, which empty themselves into the rivers. This is particularly the case in Guinea, on the coast of Africa; and it is probably from this circumstance that the English coin—now out of circulation and replaced by the "Sovereign," was called the *Guinea*.

The very finest gold is sometimes found in various parts of the East Indies; but the countries which have this, and every other quality of gold, in the greatest abundance, are Peru and Chili, in South America.

Having spoken of the malleability of gold, we cannot better prove the correctness of our assertions relative to them than by citing two well known and easily ascertainable facts. An ounce weight of gold (and gold being so very ponderous an ounce *measures* but very triflingly) is beaten by the goldbeater's hammer into very nearly 150 square feet of gold leaf, and the wire-drawer can extend the same quantity over a surface of 1000 feet without breaking or flawing it! Such a prodigious extension of matter would be absolutely incredible were it not a thing well authenticated; which it is, by the every day practice of mere mechanics. We need scarcely add, that gold is, with reference to the circulating medium, the most valuable of the metals.

Next to gold, the most valuable, the most ductile, and the most malleable of the metals is silver, which is a very fine grained and white metal. Like gold, silver is found in nearly all parts of the world; but it is in South America that it chiefly abounds, and is found of the purest and finest quality. Peru, Chili, and Mexico have very rich silver mines, but they yield, both in the abundance and the fine quality of their produce, to the far-famed silver mines of Potosi in the same beautiful country. So rich indeed are the last named mines, that though they have been worked with the most savage and unreasonable cupidity by the Spaniards, nearly ever since the enterprising Columbus, to his own eternal fame, and to the infinite misfortune of the thitherto happy and peaceable Americans, first discovered the New World, they still continue to yield silver as abundantly, and of as pure a quality, as when first they were worked. How industriously they have been worked may be inferred from the simple fact, that at first the veins of this precious metal reached almost to the surface of the mountain of Potosi, and now they are so diminished that the miners have to descend nearly 500 yards to their work.

Copper is a very useful and a very handsome metal, which is a native of most European countries, but is found in the greatest abundance, as well as in the greatest purity, in Sweden. When dug out of the mines it is produced in large masses, in which the valuable ore is very largely mingled with valueless earth. Being broken into smaller portions, it is next washed through several waters in order to separate it from the earth. That being done as far as possible, it is smelted or run into casts or moulds of a square shape, in which state it is called "copper cakes" or "salmons." This is the very coarsest and least valuable kind of copper; there are two superior sorts, of which the least valuable is called "rose copper," and the most valuable "virgin copper." The last is very rarely found unmixed in the mines. Copper, from being so much less fine, and so much more plentiful, than either gold or silver, is used only for the least nominally valuable coins.

Iron, the cheapest of the metals, and therefore not in use for the purposes of a circulating medium, is however

* Mercury also is, by some, ranked among the metals; but as the propriety of its being so ranked is disputed, we prefer to exclude it in our enumeration, though we shall describe it in this article.

so useful, nay, for many of the most valuable inventions of civilized man so indispensable, an article, that it would be better that both gold and silver should for ever disappear from the earth than that we should be deprived of its truly valuable aid. But for it, mankind would most assuredly never have attained to that high civilization and extensive commerce which render what are exclusively called the precious metals so very much in request. Neither gold nor silver would furnish a spade to till the ground, a knife to prune the luxuriant trees, a weapon to repel human or brute invaders, or the materials for the construction of powerful and durable machinery. But iron, humble in its appearance, and very generally considered valueless, is available to these and a thousand other useful purposes; and to all really valuable and practical purposes is that metal which is most undoubtedly the best entitled to the name, *par excellence*, of a *precious* metal. Indeed, even as a mere article of ornament and luxury, iron has been worked up by mechanical processes to such a pitch of excellence and beauty as to outvie gold in value.

Iron is a hard, fusible,† ductile, and dry metal. Analysis has shown it to be compounded of salt, sulphur, and earth; but all of them adulterated, and the mass ill digested, whence arises the tendency of iron to corrode with rust. There are many considerable iron works in this country, but by far the most valuable and considerable of them is that in the Forest of Dean, in Gloucestershire.

Lead, which is an exceedingly useful metal, and available to numerous important purposes, is a native, more or less, of nearly all countries, but is more peculiarly plentiful in England. It is an exceedingly fusible and soft metal, and consists principally of earth, with a small admixture of sulphur, and a still smaller of mercury. The preparation of it called white lead is the only basis of paint which has been discovered that will resist the effects of the rain and the atmosphere. Unhappily, however, those who use it suffer extremely from the powerful effects of its very subtle effluvia. So much, indeed, is this the case, that there are, comparatively speaking, very few painters who live to an average age, or who escape very severe illnesses and contractions or distortion of their limbs.

Tin is a white and tolerably hard metal; being in this respect a medium between silver and lead, a little softer than the former, and a little harder than the latter, than which, however, it is even more easily melted. The tin mines of Cornwall and Devonshire yield that metal in such abundance, that they, in fact, supply nearly the whole of Europe with it. The very useful composition called pewter, which is even yet in great request among the country people for plates, dishes, jugs, &c. consists of a hundred parts of tin, fifteen of lead, and six parts of brass.

Mercury, or as it is much more generally called, quicksilver, is, as we have said at the beginning of this article, placed by some at the bottom of the list of metals. It is, however, at most only an imperfect metal, and is neither ductile nor malleable. It is a complete fluid, and in colour very closely resembles molten silver. It is a native of Peru, Italy, Hungary, and Spain; but that which we see in this country is almost solely the product of a place in Italy called Friuli, where there are very considerable and valuable mines of it. Treating it as a metal, it is heavier than any of the real metals except gold. It is more fluid than any other matter, and may be dispersed in fume by the application of a very low degree of heat. It amalgamates

very readily with gold and with silver, though not quite so readily with the latter as with the former; with copper only with great difficulty; and can by no means yet discovered be made to amalgamate with iron. Mercury has very many important uses, and especially as a powerful medicinal ingredient in both external and internal applications. It was formerly supposed to be even in its crude state an excellent remedy in many painful chronic complaints; but since medicine has become less of a trade and more of a liberal and cultivated science, this notion has become entirely exploded.

INEQUALITIES OF THE PLANETARY ORBITS.

LA GRANGE found, that the inequalities produced by the mutual action of the planets must in effect be periodical; and that amidst all those which arise from their mutual action, two things remain perpetually the same; viz.

The length of the greater axis of the ellipse described by the planet and its periodical time round the sun; or, which is the same thing, the mean distance of each planet from the sun, and its mean motion remains constant.

The elliptical figure of a planet's orbit never alters as to length, but only in breadth, bulging out for a series of years, returning gradually to its original figure, and then bulging out again.

GERRARD'S HALL.

THE beautiful crypt of Gerrard's Hall Inn and Tavern, shown in the plate, is one of the finest remaining specimens of that species of vault which anciently formed part of the mansions of the principal London merchants, and was appropriated, by them, to the purpose of warehousing their vast stocks of imported merchandize. It is a curious fact, that most of these underground stone apartments belonged almost exclusively to the class of merchants called grocers—a name not formerly designating the trade it does now, but wholesale merchants who dealt in *gross*. Crosby-house, Bishopsgate-street, which was built by Sir John Crosby, a grocer in the reign of Edward IV., has a crypt equally spacious but less elegant than this; Alderman Keeble, also a grocer in the reign of Henry VII., and the refounder of St. Mary Aldermay Church, had a similar but smaller crypt to his house near that church, and which was discovered a few years since on widening part of Watling-street. Gerrard's Hall was the mansion of the wealthy family of the Gisors or Gisoris, grocers or wholesale merchants, several of whom were mayors or sheriffs of London in early times, and who were of Italian origin, as were the Bokerells (Bocherelli) the Basings, and other Lombard merchants, their contemporaries, all of whom are mentioned in the Hundred Rolls and Inquisitions of the reign of Edward I.

The founder of Gerrard's Hall was John de Gisors, mayor of London in 1245. Sir John de Gisors, knight, and constable of the Tower in 1311, inhabited it, and it was afterwards owned by different descendants. Thomas, one of these, left it in 1350 to his son, by the description of his "mese [messuage] called *Gisors' House*; in the parish of St. Mildred in Bread-street," and a subsequent owner, John Gisors, made a feoffment of it in 1386.

Gisors' Hall is described to have been in these times a residence fit for such distinguished merchants. Stow, the London historian, in whose day it had become an inn, states it to have been "one large house of old time, builded upon arches of stone and with arched gates within, but of late years much altered in building, divers new rooms being

† i.e. to be melted.



CURIOUS CRYPT, OR CELLAR, OF GERARD'S HALL, LONDON.

made in it;" and that it was then "a common ostrey for receipt of travellers, commonly and corruptly called Gerardes Hall."

The reason of this corruption of name is ascribed by the same author to an absurd legend then current of "one Gerard, a giant, having dwelled there," and which, it seems, principally arose from a long fir pole and a ladder remaining on the premises. The pole, Stow very correctly states to have been "used of old time (as then the custom was in every parish) to be set up in the streete in the summer as a May-pole, before the principall hall or house in the parish or streete, and to stand in the hall before the screen, deckt with elm and ivy, at the feast of Christmas;" the ladder "to have served for decking of the May-pole and roof of the hall." The vulgar, who love wonders, either did not know, or would not believe, in this appropriation, and would have "the pole to have been one of the staves that Gerard, the giant, used in the wars to run withall, and that the ladder served to ascend to the top of the staff."

This story elicits some further account of the building which is of a much more valuable nature: from the information of the hostler then employed here, it appears that this pole was nearly forty feet in length, and, as Stow further tells us, that it once stood "in the high-roofed hall of this house, and reached to the roof thereof," we learn that the hall or refectory of this grand mansion must have been forty feet high; its dimensions as to length and breadth

may be inferred from the following admeasurements of the crypt on which it stood:—It is forty-eight feet in length by twenty feet in breadth, and is equally divided into two aisles by six central round columns; these terminate above in groined arches of the early pointed order, and which spring on the sides from the same number of similarly shaped columns or pilasters. The present descent adjoins one more ancient at the north-east end, each opening into its separate aisle; and there is an old doorway on the west side, which led to other chambers, now destroyed: the light is well distributed from three large arched windows in the middle of the east side, and, added to the fine proportions of the vault itself, the effect of the whole resembles that of the crypt of some fine Gothic church. This part of Gerrard's Hall has been long occupied as cellarage by different wine merchants; the upper part and site of the other buildings form an inn, called as above, and which has for its sign a gigantic wooden figure, holding a staff or truncheon, affixed to one side of the entrance, and which was probably put up, after the fire of London, to commemorate the vulgar tradition which has been noticed.

PINNOCK'S
GUIDE TO KNOWLEDGE.

No. CXXXII.]

SATURDAY, SEPTEMBER 6, 1834.

PRICE
ONE PENNY.



MALMSBURY ABBEY.

MALMSBURY ABBEY is situated in the north-west extremity of the county of Wilts, bordering on Gloucestershire. Many centuries ago it was an institution for British nuns, under the direction of Dinoh, the celebrated bishop of Bangor, who flourished about the year 603. But St. Austin, the Saxon apostle, suppressed it, on account of the gross familiarities which the nuns indulged in with the soldiers of the garrison of Inglebourne, which was the ancient name of the adjoining town, now called Malmsbury. It formerly had walls and a castle, but they were pulled down in order to enlarge the abbey, which became the largest in the county, and its abbots sat in parliament. About thirty or forty years after St. Austin had dissolved the nunnery, a monk of the name of Maldulphus came to this place, from the Hebrides of Scotland, and obtained permission to build a hermitage at the bottom of the castle hill; there he became famous for his learning and sanctity, and procured his subsistence by instructing scholars in several branches of knowledge, and in religion. His pupils becoming numerous, and monasteries being the fashion of the day, he changed his school into a monastery,

and the place was from him named Maldulphsbury, which, from time and other circumstances, has been contracted into Malmsbury.

One of his pupils, named Aldhelm, greatly advanced the fame of this abbey, and was aided in his endeavours by the then bishop of Winchester, Eleutherius; he was its first abbot. Athelstan, the reigning king, was very partial to Aldhelm, and even made him his tutelary saint, besides giving to the town, on his account, large immunities, and adding many privileges and rich endowments to his monastery. The memory of Aldhelm was for some time kept up by a meadow near the town, which was called Aldhelm's-mead; and Athelstan, by his own desire, was buried under the high altar of the church belonging to the abbey, where there is his effigy, carved in stone.

During the reign of Edwin, the monks of the abbey were expelled, and their places supplied by secular priests; however, in the time of Edgar they were restored. Edward the Confessor, also, not only renewed their former privileges, but offered Harman, the bishop of the diocese, to remove the episcopal see to this abbey, which he would

have done had not Earl Godwin, and several ecclesiastics, opposed him. William the Conqueror, too, was a great benefactor to this institution; and in 1248, Pope Innocent confirmed all their privileges and possessions, and ordained that the rule of St. Benedict should always be observed among them. The yearly revenue of this abbey was valued at 803*l.* 17*s.* 7*d.*

Leland describes this edifice in the following manner: "The abbey church is a right magnificent thing, where were two steeples; one had a mighty high pyramis, and fell dangerously down in *hominum memoria*.* It stood in the middle of the church, and was a mark to all the country about. The other steeple is a great square tower, at the west end of the church. There were in the abbey church-yard two other churches, one of which was a little church, joining to the south side of the abbey church; the other stands at some distance."

From the same author we learn that a clothier, of the name of Thomas Stump, bought the abbey lodgings of King Henry VIII. at the time of the dissolution of monasteries generally, and intended to have converted the vacant grounds into a range of streets for the habitations of clothiers; and also that, through the instrumentality of this man in preserving it from destruction, the abbey church was converted into a parish church.

Leland further tells us, that when the abbey was entirely standing, with the spire in the middle, and the tower at the west end, it bore a great resemblance to Hereford Cathedral; but these were then entirely demolished, the abbey much ruined, and the tower gone to decay.

There were many bells in the steeples of the abbey church, upon one of which was a Latin inscription, which threatened all, who should sacrilegiously violate it, with an eternal exclusion from bliss; however, notwithstanding this mandate, neither that nor any other bell is now remaining in the abbey. The only venerable relics of its antiquity that now offer themselves to the observation of the traveller, we have endeavoured to show to our readers by the annexed Engraving.

The town of Malmsbury is about 95 miles from London; it stands on a hill, round which, at the bottom, the river Avon gently flows. Over this river, at Malmsbury, there are as many as six bridges, for the accommodation of the inhabitants. The town was first incorporated by Edward, king of the West Saxons, about the year 916; and subsequently in 939, by Athelstan, his son. However, the charter by which it is at present governed, was granted by William III.: the corporate body consisting of an alderman, who is chosen yearly, twelve capital burgesses, and four assistants, who are both likewise elected every twelve months.

The town has a considerable trade in the woollen manufacture, and is well built and populous. Among the eminent men Malmsbury has produced, we may mention William of Malmsbury, the famous historian; Oliver of Malmsbury, a great mathematician and mechanist; Thomas Hobbes, the philosopher; and Mr. Harris, the learned author of *Hermes*.

Malmsbury, at different periods, has borne different names, such as *Caer-Bladon*, *Inglebourne*, *Maldulphsbury*, *Aldhelmsberg*, *Medunum*, and *Medune'sburgh*; and, lastly, its present appellation of Malmsbury.

* In the memory of man.

OF THE EARLY CONDITION, AND GRADUAL IMPROVEMENT, OF THE HUMAN MIND.

How insignificant is the acorn, and how feeble the young and tender sapling! But it is to the acorn that we owe that graceful sapling; and the sapling grows, in time, to the lofty and wide-spreading oak tree,—the monarch of the forest, rearing his high head, uninjured, amid the tempests of three centuries of winters! It seems incredible that, from a little acorn, which seems little even in an infant's hand, an immense tree should gradually arise. Yet we see that it is so;—we see that these forest treasures, to which our beloved country owes much of her power and many of her most valuable victories, have their origin in the small and apparently insignificant acorn.

Planted in a congenial soil, the little acorn gradually grew larger, and unfolded the trunk of the young sapling, and received nurture and support from the rain and the dews, and the genial soil which they rendered doubly nourishing to the young tree. Every year increased the size and strength of the tree, and it flourished while many generations of men appeared upon the earth, and, having run their allotted course, disappeared from thence. Those who planted the acorn survived not to witness the pride and strength of the noble tree; for to perfect the oak from the acorn more years are requisite than are usually allotted to the life of man. But, though they knew that they could not instantly hope for the reward of their care, they planted the acorn nevertheless; for they knew that its growth, though gradual, would be no less certain. Can we, kind reader, draw no moral lesson of great value from these facts? Oh, yes; I think we can;—a lesson which all should learn, and which, being once learned, should never be forgotten. Between the feeble and dormant mind of the young infant, and the vigorous and well furnished intellect of the philosopher, there is no less difference than between the little and slightly regarded acorn and the gigantic and many-branched oak, under which successive generations of men repose in the sultriness of noon; and beneath whose leafy canopy the youthful villagers trip in their evening leisure. Had those who saw the acorn in its littleness passed it by in disdain, or neglected to plant it because they despaired of its growth, where would the wearied labourer have looked for the grateful shade of the majestic oak? That disdain or that negligence, though displayed merely to an acorn, would in, fact, have destroyed a mighty oak: for, in the little acorn's minute folds lay the germ of every portion of that oak, requiring, to ensure its perfection, only due nourishment during the necessary time. And even such is the case with the original condition and gradual improvement of the human mind. Feeble, and almost imperceptible, the infant mind contains, hidden as it is, the germ of all those noble faculties which in after years instruct, delight, or profit society, and do honour to their possessor.

But the germ of the human intellect, like the germ of the oak, must be tended and nurtured, or it will not attain to perfection. If the acorn be planted in an uncongenial soil, and lack the nourishment of the dews and rains of heaven, the germ of the oak will rot and perish in the earth. In like manner the human mind, if not supplied with its requisite nourishment, truth and wisdom, will sink into idiocy, or become luxuriant only in vice, or flippant ignorance. From its earliest dawning it must be

tended with the most vigilant and unceasing care; constantly supplied with the means of improvement, and as constantly pruned of that exceeding luxuriance to which even the best constituted human minds are, unhappily, but too prone. Though there is, as we have shown, a striking analogy between the growth of the oak and the progress of the human mind, there is one difference between them so striking and so vitally important, that it is incumbent upon us to point it out to our young readers.

Though both the young oak and the youthful mind depend for their progress towards perfection upon a due and unremitted supply of the nutriment proper to their nature, yet success with which those nutriment is administered to them, depends upon widely different circumstances in the two different cases. When the young oak is once planted in a soil adapted to its nature, it cannot refuse to profit by the nourishment provided for it; it cannot set itself in hostile array against the hand which has planted it, or refuse admittance to the strengthening juices which rush into its young fibres and give strength to its whole fabric. In a word, if it perish, or if it fall short of the degree of perfection attainable by its kind, it does so from no fault and from no choice of its own.

Widely different is the case with the young human mind. This is not a mere passive subject for the care and direction of others; it is an agent in its own growth, sentient, conscious, and powerful; enabled to assist or to obstruct the efforts which others make for its improvement and perfection, cognizant of its own progress, and, therefore, accountable and responsible for the use or abuse of its innate and important powers. Proud reader! how important is this difference between your young mind and the sapling! And how desirous, how perpetually and ardently anxious should you be, to profit by the instructions of your elders, and to aid them in their affectionate exertions for your improvement! Without this desire and anxiety upon your part, vain will be all the affection and anxiety of your doating parents, and equally vain all the learning and patient labour of the preceptors whom your parents, in disinterested and watchful love, provide for you. You cannot, like the young oak, be made to improve; you can only be assisted and instructed to do so. Receive not, then, the advice of your parents, or the instruction of your preceptors, in mere unresisting passiveness; still less, far less, oppose obstinacy to love, or wilful dulness to patient intelligence. In so doing you will inflict grief indeed upon your parents, and vexation upon your preceptors; but the real, the deep, the never ending injury, will be inflicted only upon yourself. Yours will be the disadvantages and the mortifications springing from self-inflicted ignorance, or the terrible sufferings and disgrace resulting from the vice of which that ignorance seldom fails to be productive.

Nor is it merely during the comparatively brief space of your mortal life that the ill effects of ingratitude, obstinacy, or perversity, will pursue you. You are not, like the young oak, created for a time, but for eternity. If the ill consequences of youthful perversity were but a life-time long, would there not be abundant reason for your constantly and vigilantly guarding against its intrusion into your minds? How much more so, then, is that the case, when the fruits of your youth are to be, not merely for a time, but for ever! The oak attains to its utmost perfection, and decays, or is cut down; but the

human soul survives the human body's decay, and is blissful or wretched according as it has been virtuous or vicious. Its being the former or the latter depends mainly upon the bent of the *young* mind. Wherefore, happy youth! you, who have parents, friends, and instructors, give ear to their voice; hear them in a meek and a teachable spirit, and labour diligently to profit by their wisdom and their care. So shall you lay up great store of wisdom and of happiness for yourselves, and so shall you best reward those whose days and nights have been anxiously devoted to your welfare. Deem not, that because you *are* not wise, you never can become so. Remember that the gnarled and spreading oak proceeded from a little acorn, and that for many years it was a weak sapling, waving in the gentlest winds. Remember, too, that the wisest and greatest of those whose names your elders pronounce with a feeling almost akin to reverence, were once little children like yourselves. Their minds were once unformed and unfurnished, as yours now are. If you would arrive at their eminence, bear constantly in mind, that you must imitate their patience, their attention, their desire for improvement, their love of their parents, and their respect for their instructors.

ROMAN LUXURY.

LUXURY, is, in fact, nothing more than superabundance, or the application of superfluities to unnecessary purposes: luxury, therefore, may be found in the cottage as in the palace, according to the different ideas of superfluity imparted by education, habit, or philosophy. Diogenes considered a cup as a luxury, because he could drink out of the hollow of his hand. An ancient German warrior, on the contrary, looked upon the skull of his enemy, tipped with silver or gold, as an indispensable drinking utensil; and by an oriental debauchee, a single onyx, or a pearl hollowed out into a goblet, was not deemed a luxury.

The moralists of all ages have loudly declaimed against luxury; the politicians, on the other hand, have often defended it; the former, in general, with morose expressions, which prove nothing; and the latter with mercantile views, which are good for nothing. Both were wrong. The defenders of luxury asserted, that it increased population; but at the time of the highest prosperity and luxury of the Roman commonwealth, Italy, according to the testimony of Livy, was scarcely half so populous as when it was parcelled out into petty republics, which were strangers to luxury. They, moreover, maintained, that it enriches the state. There was a time when Portugal was one of those states which most abounded in luxuries; and yet, notwithstanding the excellence of its soil, its favourable situation, and its colonies, it was less rich than Holland, so destitute of luxuries, with its inferior position and its simple manners.

They farther urged, that luxury promotes the circulation of money. But in France, luxury had, fifty years ago, risen to a very high pitch; and yet people complained, with reason, of the want of this circulation: money, indeed, was profusely poured from the provinces into the capital, but it did not find its way back again.

They likewise advanced, that luxury softens the manners. Examples of the contrary are daily witnessed.

They asserted, that it favours the progress of the sciences and the fine arts. It might be asked, what progress had the fine arts made among the Sybarites and Lydians?

—Lastly, they assumed that luxury infallibly augmented both the power of nations and the happiness of individuals;

but the Persians, under Cyrus, were almost strangers to luxury, and subdued the opulent Assyrians. When, in the sequel, the Persians themselves had become the most luxurious of nations, they bowed their necks to the yoke of the indigent Macedonians. Savage nations, without luxury, destroyed the Roman empire, and demolished the throne of the caliphs. As to the happiness of the citizens, luxury certainly affords more conveniences and gratifications—but to how many? By far the smallest number.

It is evident that history does not support the friends of luxury; but it is not more favourable to its enemies. The latter, always ready to hurl their anathemas, maintained, that a very great inequality of riches is the inseparable companion of luxury; that a few revelled in abundance, while the multitude languished in the most abject misery. But this position is not always true. In Poland, where slavery appeared in its most odious form, there was less luxury than in Switzerland, where the people lived in superabundance.

They farther maintained, that luxury sacrifices the useful to the agreeable arts, and that it desolates the country by enticing the inhabitants to the cities. But Lombardy and Flanders possessed, and still possess, great luxury, numerous and handsome cities; notwithstanding which, the country is populous, and the husbandman wealthy. In Spain, on the contrary, where little luxury prevails, agriculture is neglected.

They assert, that luxury depopulates the state; but, for above a century, luxury and population have, in England, increased in equal proportion. They maintain, that luxury enervates. Were the Romans less brave under Lucullus? They say, that it stifles patriotism, and a sense of honour. Was ever a sense of honour more brilliantly displayed than in the luxurious age of Louis XIV?

What inference is to be drawn from all this? That both parties are neither right nor wrong. Excessive luxury is in every respect pernicious; when moderate, it is beneficial. But it is extremely difficult to determine where the line is to be drawn between the too much and the not too much; and this depends on the peculiar relations of each state. In a political point of view, I am ready to subscribe to this position, that every luxury which consumes the productions of its own soil, or of native industry, is advantageous; but, on the other hand, that luxury is pernicious which consumes none but foreign productions.

But it was not my intention to write a moral or political

dissertation on luxury; I merely designed to say a few words concerning the luxury of the Romans; because it is at present so general a complaint, that luxury had never attained such a height as in our days among the people, who so horribly imitate the ancient Romans, and that, unfortunately, in the mode of obtaining the means of the most extravagant luxury. Still, however, people are egregiously mistaken, if they imagine that the luxury of the modern Romans can bear even a distant comparison with the luxury of those of antiquity; concerning which I have collected a few facts. Seneca, Pliny, Valerius Maximus, Dio, Martial, Suetonius, and many others, whose names are of no consequence to the reader, are my authorities.

Opulence is the mother of luxury. The Romans were much more wealthy than their modern imitators. Apicius possessed a million sesterces; Crispus and M. Crassus twice as much; and Seneca even thrice that sum, according to Tacitus. Narcissus, and a certain augur, Cn. Lentulus, had each four millions of sesterces. Isidorus, a man of very low birth, had upwards of four thousand slaves, three thousand yoke of oxen, two hundred and fifty thousand herd of cattle of all kinds, and left, besides, a prodigious quantity of ready money. This Isidorus, had moreover, lost considerable property during the civil war. There were people who possessed whole provinces, and knew not the boundaries of their domains. In Nero's time, half of Africa was divided among six masters. To such Seneca alluded when he exclaimed, "O! how lamentable is it when a man knows no greater pleasure than to open his immense rent-roll, to survey the prodigious tracks which are cultivated for him by subject nations, the innumerable flocks and herds which find their pasture in provinces and kingdoms; a domestic establishment more numerous than many a warlike people; private buildings more extensive than large cities!"

This remarkable passage might indeed be looked upon as a poetic exaggeration, if a hundred other contemporaries had not confirmed its accuracy. "It has come so far," says the same Seneca, "that even exiles take with them for their support a larger sum than formerly constituted a princely inheritance." The emperor Augustus restrained the latter abuse; he decreed, that an exile should not have more than twenty slaves or freed men, and not more in money than five hundred thousand sesterces.—KOTZEBUE.

(To be continued.)

WILTSHIRE.

WILTSHIRE is an inland county, situated in the south-western part of England. On the north and north-west it is bounded by Gloucestershire, on the north-east by Berkshire, on the south-east by Hampshire, on the west by Somersetshire, and on the south-west by Dorsetshire.

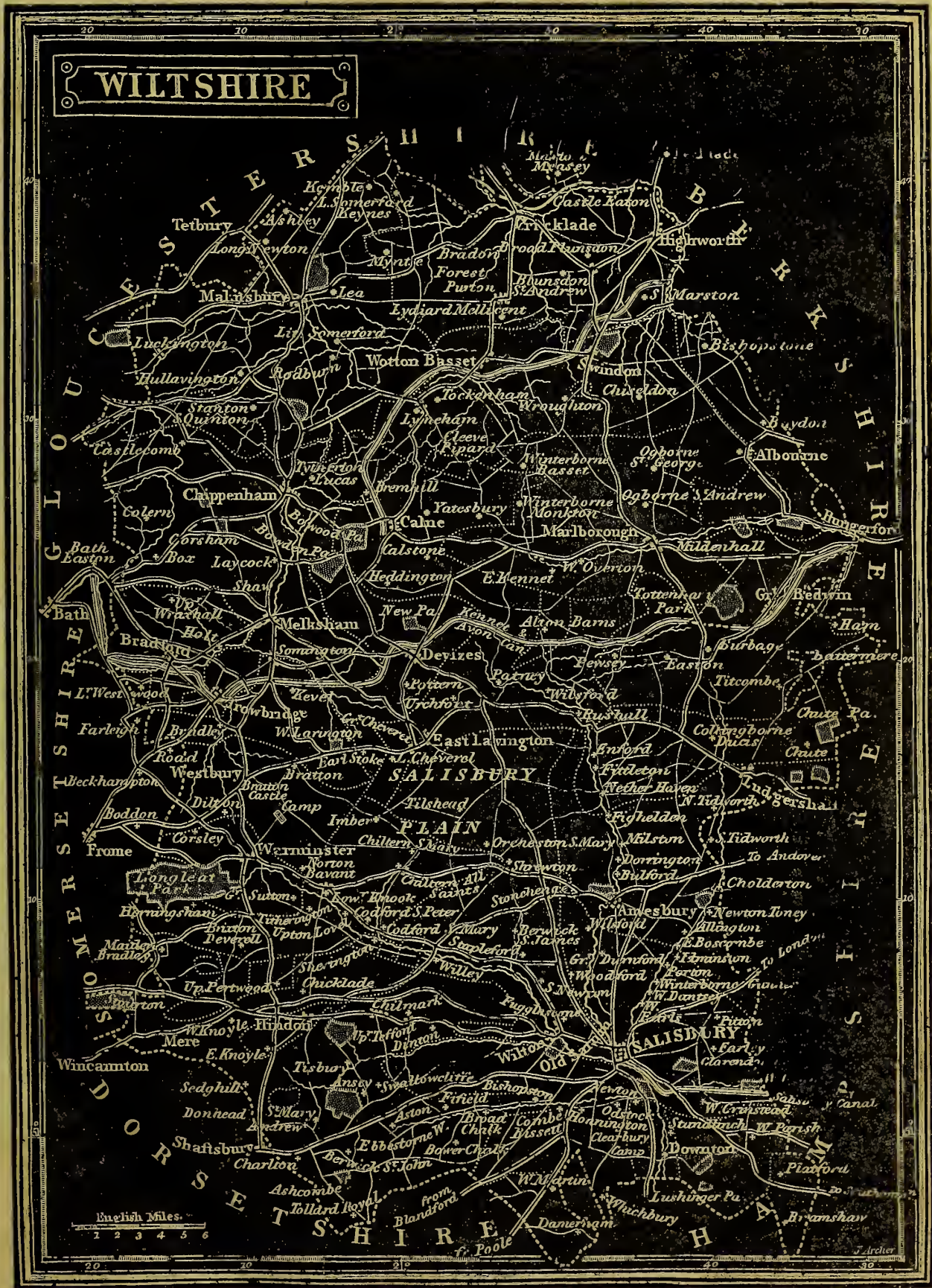
It takes its name from Wilton, which once was a considerable place, and the county town; it is situated on the river Willey, and on that account was called *Willeytown*, which has become contracted into Wilton.

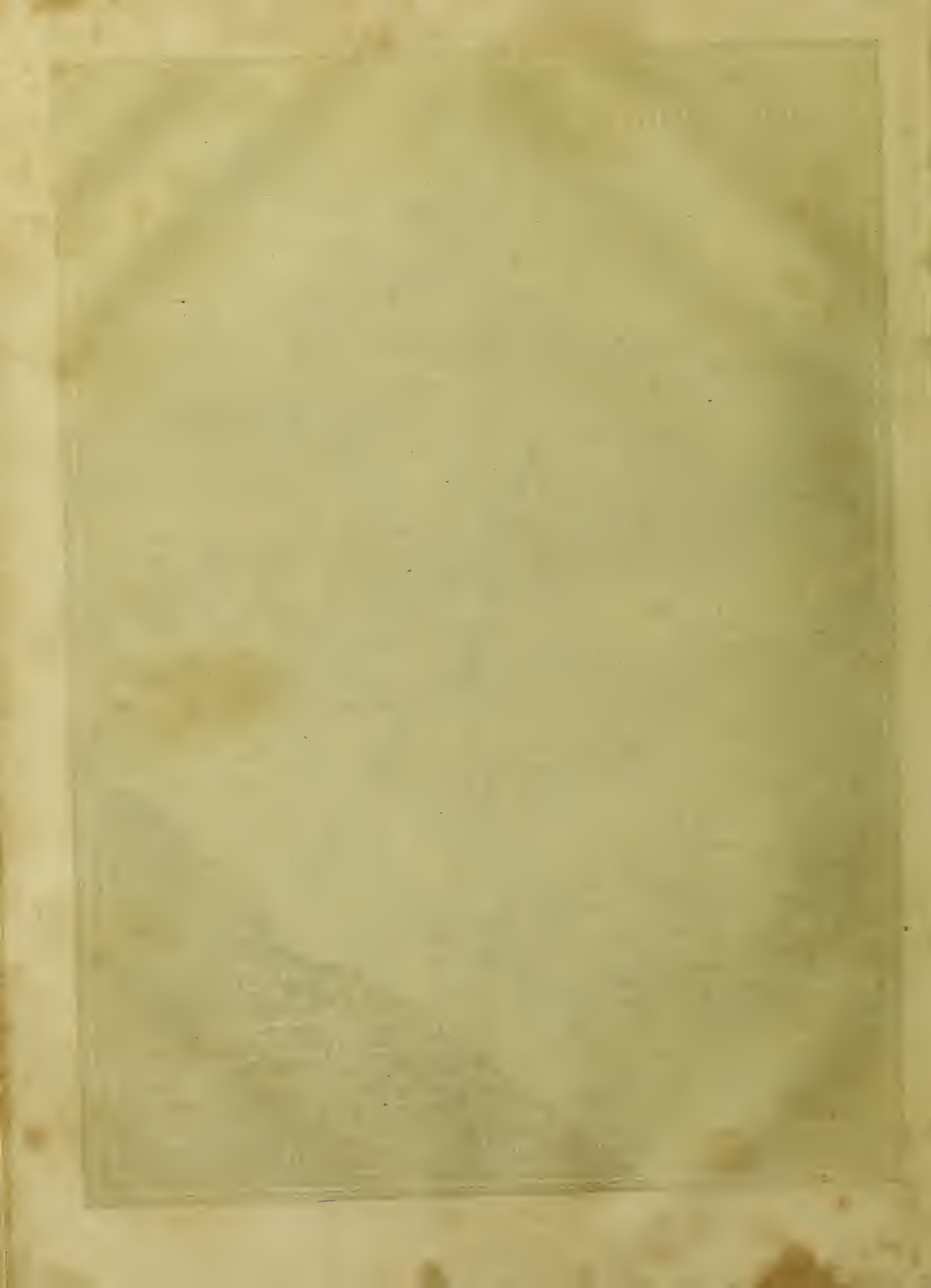
This county is 50 miles long, and about 38 broad, comprising an area of nearly 1,200 square miles. The air, for the much greater part, is pleasant and salubrious; on the hills and downs it is rather sharp, but in the valleys mild, continuing so through the winter.

In the northern part the landscape is diversified by

gentle acclivities and fertile valleys, well covered with wood, and intersected by a few clear streams. The southern part is rich and fertile, connecting itself with the bordering counties by chalky hills, which abound with deep and pleasant valleys, formed by the many meandering rivulets that take their rise in the vicinity. The centre of the county consists chiefly of downs, which afford the most excellent pasture for sheep; the north-eastern portion, on the side of Berkshire, which is a considerable tract, is called the Marlborough-downs, and that extensive portion to the south is denominated Salisbury-plain. On these downs, relics of British antiquity, and ruins of Saxon, Danish, and Roman monuments, are to be found. Among them the most celebrated is Stonehenge, which is a collection of vast stones, circularly arranged, and a few of

WILTSHIRE





them connected together, by others laid across the top of them. The purposes of their erection, and the builders of them, antiquarians have long endeavoured to explain.

The chief productions of this county are sheep, wool, wood, and stone; the last of which is procured from the quarries at Chilmark. The manufactories are numerous; among them the most considerable are the woollen, and of that particular cheese called North Wiltshire.

The principal rivers that water this county are the *Thames* or *Isis*, *Upper* and *Lower Avon*, the *Willey*, the *Bourne*, and the *Kennet*; which are connected by numerous canals, for the more easy conveyance of merchandize from one part of the county to another. The *Thames* flows from Gloucestershire, by Cricklade, into Berkshire. The *Upper Avon* rises near Devizes, and, running southward by Salisbury, flows into Hampshire. The *Lower Avon* comes from Gloucestershire, and flows by Malmsbury and Chippenham, and passes between the counties of Somerset and Gloucester. The *Willey* rises near Warminster, and, running south-eastward, falls into the *Upper Avon*, near Salisbury. The *Bourne* rises near Great Bedwin, and, flowing southward, enters the *Upper Avon*, on the east of Salisbury. Lastly, the *Kennet* rises near the source of the *Upper Avon*, and, running eastward by Marlborough, passes into Berkshire.

Wiltshire is divided into 29 hundreds, which comprise the city of Salisbury, 24 market towns, and 304 parishes.

The chief towns, besides Salisbury, are, *Marlborough*, *Devizes*, *Warminster*, *Chippenham*, *Bradford*, *Trowbridge*, *Calne*, *Cricklade*, *Malmsbury*, *Westbury*, and *Wootton Bassett*.

SALISBURY, the capital of the county, and a city, is of ancient date, large, handsome, and well-built. It is situated in a pleasant valley, and surrounded by the Upper Avon and its tributary streams, which, in the form of a rivulet, flow through every street. It took its name and rise from *Old Sarum*, an adjoining spot, anciently called by the Romans *Sorbidunum*. At the time of William the Conqueror, and during a few succeeding reigns, *Old Sarum* was a place of some note, but on the removal of Bishop Poor, in the reign of Henry III. to the valley below, where he built a fine cathedral, and translated thither the episcopal see, the inhabitants came with him, and laid the foundation of the town of *New Sarum*, or *Salisbury*; which increased so rapidly, that Henry III. incorporated it, and it is now governed by a mayor, high-steward, recorder, 24 aldermen, 20 common councilmen, and other officers.

The cathedral is the most elegant and regular Gothic structure in the kingdom. It is built in the form of a lantern, with a spire of free-stone in the middle, which is the highest in England, being 410 feet from the ground, upwards, and it contains as many windows as there are days in the year. It was begun A.D. 1219, and finished in 1258. The organ in this building is fixed over the entrance of the choir, and is very large, being twenty feet broad, and forty high, and having fifty stops.

The manufactures of Salisbury are those of flannels, serges, kerseymeres, linseys, hardware, and cutlery. It is distant 83 miles from London.

Of *Old Sarum* nothing now remains but a farmhouse and a few curious earthworks of very great antiquity. Till lately it was accustomed to send two members to Parliament, but by the Reform Bill, lately passed, it is disfranchised.

MARLBOROUGH is a very ancient town, and derives its name from its situation, being at the foot of a hill of

chalk, or marl. In the year 1267, in the reign of Henry III. a great council of the nation met at this place and passed a body of laws, which are still called the Marlborough statutes; they, however, related to the barons of that period. The town consists of one long and broad street, and is in the high road to Bath and Bristol: it has two parish churches, and is governed by a mayor, 2 justices, 12 aldermen, 24 burgesses, &c.

In Marlborough there was once a famous castle, and upon its ruins the marquis of Hertford built a mansion, which, for upwards of sixty years, has been occupied as an inn for travellers. The town is seated on the Kennet.

DEVIZES is a large and populous town, nearly in the centre of the county; it has several streets, and in its neighbourhood was once a noted castle, which Roger, bishop of Salisbury, rendered almost impregnable in the time of Cromwell; it was several times besieged; subsequent to which, its fortifications have been entirely demolished. The corporation consists of a mayor, recorder, 10 magistrates, and 24 common councilmen. Its market is one of the best in England, and it has manufactories of serges, and other woollen stuffs.

WARMINSTER is a populous well-built town, seated on the river Deveril; it is famous for its corn-market, and its trade in malt; it has also a considerable trade in woollen cloths.

Near this place there is a lofty eminence called *Clay-hill*, which is steep on every side, and may be seen for many miles round the country.

CHIPPENHAM is a well built town, pleasantly situated on the Avon, over which there is a bridge of sixteen arches. It takes its name from the Saxon word, *Cheppen*, which denotes a market-place. It was formerly noted for its great trade. In the time of the Saxons those monarchs had a palace here, particularly Alfred, but no vestige of one is now to be seen in the neighbourhood. It has a trade in woollen cloths.

BRADFORD is a large populous town, seated on the Lower Avon, two miles south-west of Trowbridge. The Saxons called it Bradenford, from a broad ford there over the river, where there is now a good stone bridge. It is at present noted for its great manufacture of fine broad-cloths, which it shares with a few neighbouring towns.

TROWBRIDGE is a large and populous town, seated on the Were: it was once famous for a castle, which belonged to the dukes of Lancaster; however, not a vestige of it is remaining; and it is now celebrated for its manufactory of the finest woollen cloth, which is said to be the best in the kingdom.

CALNE is a small but pleasant town, situated on a hill, and close to a rivulet of the same name. The West Saxon kings resided here, and ever since the time of Edward I. it has sent members to Parliament. It has an excellent manufacture of broadcloths, and is very populous.

CRICKLADE is a large and populous town, of great antiquity, and formerly a considerable place. It has two parish churches, one of which is a very handsome gothic structure, and has a beautiful high tower. The town is situated at the influx of the two small rivers, Churne and Rey, which here fall into the Isis.

MALMSBURY is a very ancient town, seated on the side of a hill, and on the Avon, over which there are six bridges. It was long famous for its abbey, which we have just described in page 310, and by an Engraving shewn the state of its decay. It has extensive manufactures of cloth, gloves, leather, parchment, and glue.

WESTBURY is a considerable town, remarkably healthy and salubrious; it takes its name from being situated at the western extremity of Salisbury-plain. It is governed by a mayor, recorder, 12 aldermen, and other officers. The church is a venerable Gothic structure; and the town-hall a good modern building. The principal manufacture is that of woollen cloths.

WOOTTON BASSET is an inconsiderable town in the northern part of the county. It takes the name of *Basset* from its original lords, and that of *Wootton* from *Wood-ton*, or *Wodeton*, being contiguous to Braden-forest. It is so poor a place, that most of the houses are covered with thatch. Some cloth is made here; and it has a charity-school.

Among the most considerable characters of this county were Thomas Hobbs, Edward Hyde, earl of Clarendon, Edward Ludlow, Sir John Davies, Thomas Willis, Sir Christopher Wren, John Scott (the divine), John Morris, Sir Richard Blackmore, Joseph Addison, Thomas Bennet, D.D., John Hughes, and Thomas Chubb.

POPULATION OF THE CHIEF TOWNS.

Salisbury	9,876	Cricklade & Hun.	1,642
Marlborough & Par.	4,186	Downton & Par.	3,652
Devizes	4,562	Malmsbury & Par.	6,136
Bradford & Par.	3,642	Melksham & Par.	4,722
Calne & Par.	4,876	Trowbridge & Par.	10,863
Chippenham & Par.	5,270	Westbury & Par.	7,324
Corsham & Par.	2,952	Wilton & Par.	9,758

The entire county contains 239,181.

WILTSHIRE sends 18 members to parliament; namely, for the county, 4; Salisbury, 2; Marlborough, 2; Devizes, 2; Chippenham, 2; Cricklade, 2; Calne, 1; Malmsbury, 1; Westbury, 1; and Wilton, 1.

USEFUL MAXIMS.

Our admiration, which is a very pleasing motion of the mind, immediately rises at the consideration of any object that takes up a great deal of room in the fancy.—*Addison*.

It was equity that established weights and measures, and discovered the use of numbers.—*Phœnician Virgins*.

To detract any thing from another, and for one man to multiply his own conveniences by the inconveniences of another, is more against nature than death, than poverty, than pain, and the rest of external accidents.—*Cicero*.

The only riches is a clear, an uncorrupted, an honourable independence.—*Anon*

Beware of sudden change in any great point of diet; and if necessity enforce it, fit the rest to it; for it is a secret both in nature and state, that it is safer to change many things than one.—*Bacon*.

Bashfulness is more frequently connected with good sense, than we find assurance; and impudence, on the other hand, is often the mere effect of downright stupidity.—*Shenstone*.

Preserve well the fire of your charity and the fervour of your devotion.—*Anon*.

HISTORICAL & BIOGRAPHICAL MEMORANDA OF SEPTEMBER.

September 7th, in 1533, *Elizabeth*, subsequently the renowned queen of this kingdom was born of Anne Boleyn, wife of Henry VIII.

On this day, in 1813 *Lord Wellington*, after his arduous contests with the French armies in the Peninsula, marched his forces into France.

September 8th, in 1643, the battle of *Roundway Down*, near Devizes, was fought between the armies of Sir William Waller and those of Charles I. After a severe engagement the Royalists overcame their opponents, and drove Sir William Waller and his disordered troops from the field.

On this day, in 1798, during the Irish rebellion, the French landed in that country, but were attacked and defeated by *General Lake*. Marquis Cornwallis was at that time the lord-lieutenant of Ireland, and, by his prudent conduct and active energies, he overcame the insurgents, and restored, for awhile, tranquillity to that unhappy country, which prepared the way for that union of the two kingdoms which subsequently was effected; but which, lately, has been strenuously attempted to be destroyed.

September 9th, in 1087, died *William the Conqueror*. During the siege of Mante, in France, his horse chancing to put his feet on some hot ashes, plunged so violently, that the king was thrown forward on his saddle, the pommel of which injured him so much, as to cause his death shortly afterwards at Hermentrude, near Rouen, in the sixty-third year of his age, and twenty-first of his reign over the English. He was buried at Caen.

On this day, in 1513, the memorable battle of *Flodden Field* was fought, in which the Scots, under their king, James IV., were totally defeated, and their monarch, with the greatest part of his nobility, left dead upon the field. The forces of Henry VIII. consisted of twenty-six thousand men, and were commanded by the earl of Surry. Those of the Scotch amounted to fifty thousand.

September 10th, in 1547, the *Duke of Somerset*, Protector of the kingdom during the minority of the young king, Edward VI., fell in with the Scotch forces at a place called Pinkey, near Musselburgh Bay; after a short, but severe encounter, the Scots gave way, and the English, fired with their national antipathy for their northern neighbours, pursued them for five hours, strewing the roads with swords, spears, targets, and numbers of the slain. On this eventful day, and one of the most fatal that Scotland ever witnessed, ten thousand men were slain, and a few taken prisoners.

September 11th, 1709, the British forces and their allies, under the command of the Duke of Marlborough and Prince Eugene, engaged with the French forces at *Malplaquet*. Each army amounted to about one hundred and twenty thousand men; the enemy were posted behind the woods of La Mole and Tamières, and the confederates were encamped near Sart and Bleron, and on the edge of the wood of Languières. The attack shortly commenced, and after a desperate conflict of about an hour, the confederates were left masters of the field, with about forty colours and standards, sixteen pieces of artillery, and a great number of prisoners. On the French retiring to Valenciennes, the allies besieged the town of Mons, which capitulated, and both armies were distributed into winter quarters.

On this day, in 1777, the British forces in America under the command of General Knyphausen and Lord Cornwallis, gained a complete victory over the American army, which was commanded by Washington and General Sullivan, at a place called the Forks of Brandywine.

TO OUR READERS.

Our next Number will contain an Account of St. Petersburg, the Metropolis of the Russian empire, with an Engraving.

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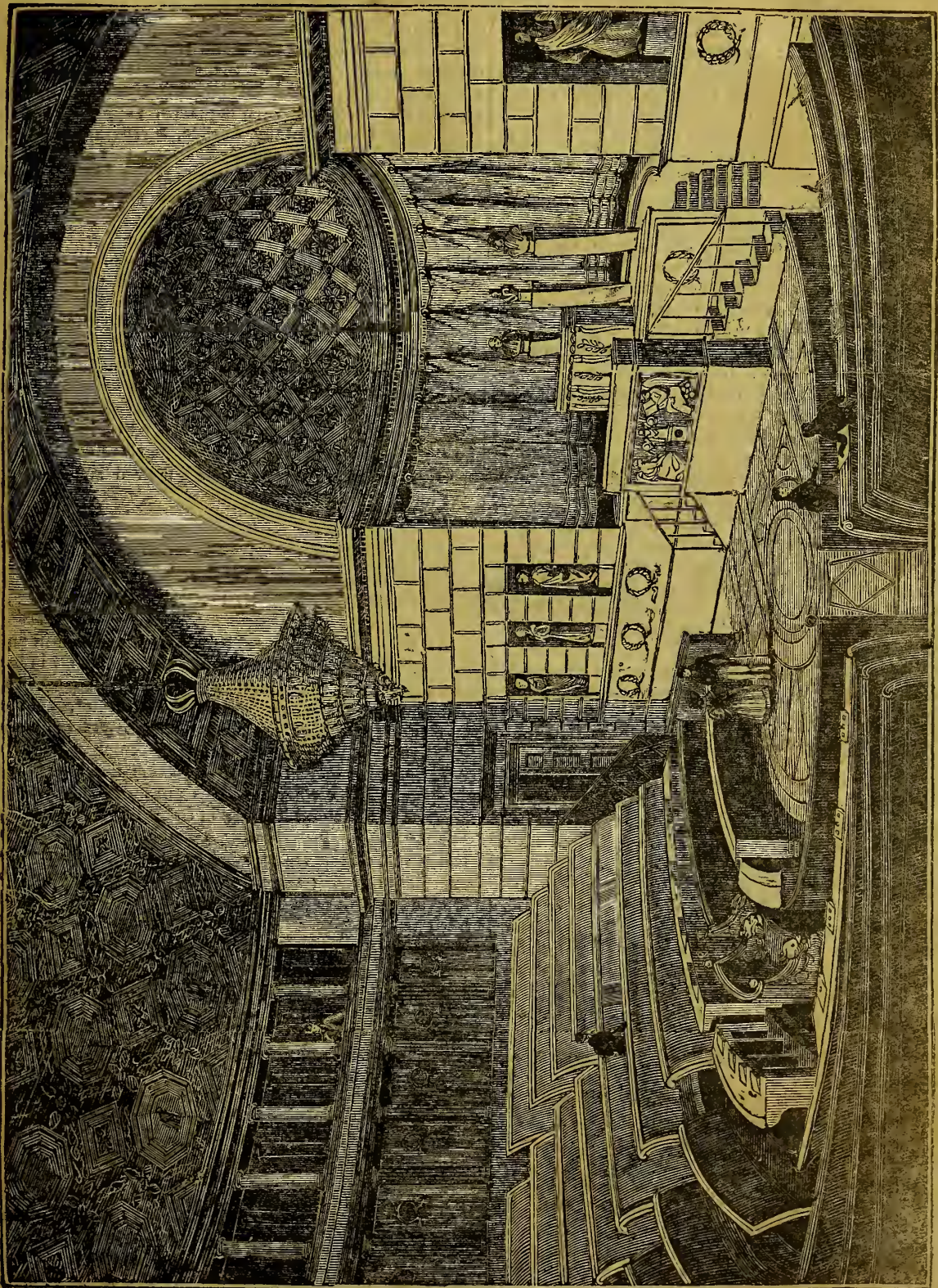
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PINNOCK'S
GUIDE TO KNOWLEDGE.

No. CXLII.

SATURDAY, NOVEMBER 1, 1834.

PRICE
ONE PENNY.



THE PALACE OF THE CHAMBER OF DEPUTIES AT PARIS.

THE PALACE OF THE CHAMBER OF DEPUTIES AT PARIS.

THIS palace was erected in 1722, by Louise Françoise, duchess of Bourbon. It was begun after the designs of an Italian architect named Girardini, but continued under the direction of J. H. Mansard, L'Assurance, and others. Upon its coming into the possession of the prince of Condé, an arrangement was made by the late king to appropriate a part of it to the sittings of the deputies of the departments, while the remainder should be still occupied by the prince. At the instance of this wealthy individual the structure was considerably enlarged, while its interior underwent embellishment at an enormous expense, and to the utmost magnificence. The part occupied by the prince was termed the Palais Bourbon.

The plan of the palace consists of ten principal courts, surrounded with buildings which afford ample accommodation for a numerous household; and all the offices and out-buildings are upon a very extensive scale.

The architecture of that part of the palace facing La Place Louis XV. is not of the very best style; and when the Pont Louis XVI. was built, the Palais Bourbon could scarcely be seen. In the early part of the revolution of 1789, it was completely plundered of its costly furniture and ornaments, and remained neglected for several years. In 1795, it was chosen for the sittings of the Council of Five Hundred, and one *Gisors* was charged to execute the works requisite for its new destination. The part towards the Seine was appropriated for the sittings of the council, and the remaining part was destined for the residence of the president. The architect, guided by economy, preserved part of the old structure, blocked up the windows, and added to the front a portico ornamented with six columns. The pediment was adorned with a bas-relief, representing Law punishing Crime, and protecting Innocence. The whole was surmounted by a heavy attic story.

In 1798, the Council of Five Hundred took possession of their new hall. It is in the form of a semi-circle, with the president's chair and desk in the middle of the crescent. In front of the desk is the tribune, adorned with a bas-relief, by Lemot, representing History. Before the tribune was an altar to the nation.

On each side of the tribune are three niches occupied by the statues of Lycurgus, Solon, Demosthenes, Brutus, Cato, and Cicero. And to make this establishment fully adequate to all the purposes of public business, several spacious rooms for committees, &c. were erected; and the name of Palais du Corps Legislatif was applied to the entire building.

The present front of this building is considered one of the finest specimens of architecture in the whole French capital. It was erected, at the instance of Buonaparte, in 1807, at a cost of 1,759,000 francs, and from designs by Poyet. It consists of a portico, composed of twelve Corinthian columns, extending to a distance of nearly a hundred feet, and ascended by a bold flight of steps, twenty-nine in number. Statues of Sully, Colbert, l'Hôpital, and d'Aguessan, ornament the foreground, and immense colossal figures, typifying Justice and Prudence, are fixed on pedestals at the bottom of the steps, eighteen feet from the ground.

In 1815, the fine specimen of sculpture that adorned the tympanum of the pediment, and which was the *chef-d'œuvre* and last work of the celebrated Chaudet, was utterly destroyed; and in place of it was put up a bas-relief in plaister, representing Law, supported by the Charter, and attended by Justice, Strength, Navigation, the Arts and Sciences, and Commerce: this was the work of one Fragonard. In the same year the bas-reliefs that ornamented the wall of the portico were as completely defaced.

A triumphal arch of the Corinthian order adorns the chief entrance, towards the Palais Bourbon. This arch is connected by galleries of columns with two pavilions. The ornaments and family arms which marked it as the residence of the descendants of the great Condé were totally destroyed during the progress of those frightful excesses that characterised the French Revolution.

It was not till the year 1815 that this extensive edifice received the appellation of *Palais de la Chambre des Députés*. Some idea may be entertained of its appearance by the annexed engraving, and of its size by the fact that the terrace of its garden is nine hundred and forty-eight feet long.

IMPROVED CONDITION OF PRUSSIA.

As concerns agriculture, its advance is shown in an improvement in the breed of cattle, and particularly in horses and sheep; in the judicious adaptation of manures to the different natures of the soil; and by the introduction of more perfect implements of husbandry. The advance in industry has been equally rapid; former manufactures have been perfected; goods for which the kingdom was dependent upon other countries are now manufactured at home, and a general increase in commerce has taken place. For example, Prussia now manufactures silk goods at Elberfeld, and it is intended to naturalize the mulberry, experience having shown that this tree may be cultivated in climates where it was not considered possible to establish it. The manufactures of porcelain at Berlin, formerly so ordinary, are now become distinguished for beauty of form, size of the specimens, brilliancy of colours, and the execution of their painting. Artificial flowers, which were formerly imported from France, are now executed to a degree of perfection equal to those of Paris.

An increased improvement in manufactures has more particularly taken place in a small district of Westphalia. Every manufacture of Europe and of the east is here carried on; the products of France and England are imitated to perfection, and are now sold at lower prices than in those countries.

This district is traversed by the small river Wupper, and its principal towns are those of Elberfeld and Solingen, situated both upon the river Wupper; in the former are principally carried on the manufactures in silk, cotton, and thread. In 1829 its inhabitants were estimated at more than 25,000, and its annual exports at 80,000,000 of

francs. In Solingen are manufactured small arms and cutlery: Fire-arms are manufactured at Saarn.

At present the only remnant of feudal rights in Prussia consists of the power attached to manors of nominating spiritual ministers and schoolmasters of village schools; and these appointments must have the approval of the administrative authority.

The amount of troops which Prussia has the power of putting in motion may be estimated at 300,000, under the supposition that her finances will be adequate to the development of such a force. This force is thus composed; viz.

Regular army.....	100,000 men.
Kreig's reserve (reserve for war)....	50,000
Landwehr (defence of the country) ..	150,000

The annual revenue of Prussia is 189,761,900 francs, which, if divided by 25, will give the amount in pounds sterling nearly. From this sum must be deducted, for the national debt and sinking fund, 40,293,000 francs; permanent pensions, remunerations, &c. 12,099,000 francs: these deductions reduce the sum disposable for public service to 137,369,900 francs. The expenses of the war department of Prussia amount annually to 84,352,600 francs; a moderate expenditure for the maintenance of an army of 300,000 men, of numerous fortresses, and of a considerable *materiel*. With the 53,017,300 francs which remain after the above outlays, not only are the other expenses of the state provided for liberally, but there is added annually to the sinking fund 5,000,000 francs, unless prevented by extraordinary circumstances.—*Translated from the Work of M. Chambray, recently published.*

INTELLECTUAL STATE OF RUSSIA.—The number of journals which at present issue from the Russian press is seventy-three; and of these the *Northern Bee* and the *Patriot* enjoy the most extensive circulation. They are written in no less than twelve different languages. The number of elementary schools is 1,411. They are frequented by 70,000 pupils. So that, on a comparison of the total number of children capable of instruction in the Russian dominions with those who are actually educated, there does not appear to be more than one in 367 whose mind is even superficially cultivated. There are some universities in Russia, at which 3,100 youths are now being educated, under the care of 300 professors. The ecclesiastical nursery is well attended to; inasmuch as the four academies of theology at Kiew, St. Petersburg, Moscow, and Kasan, together with the thirty-seven upper and eighteen lower seminaries appertaining to the Greek church, contain 36,000 pupils, in charge of 427 professors.—*Times.*

MARINE ANIMALS.—The Rev. W. Scoresby, late Captain Scoresby, remarked, during a run of 50 leagues, the sea was constantly of an olive green colour, remarkably turbid; but, on the afternoon of the 17th of April, it changed to transparent blue. This green appearance of the sea in these latitudes was occasioned by myriads of small marine animals. A calculation of the number of these animals, in a space of two miles square, and 250 fathoms deep, gave an amount of 23,888,000,000,000.

COSMOLOGICA; OR, OBSERVATIONS ON NATURE, &c.

(Continued from page 332.)

TIDES OF THE OCEAN.

ALL the elements in nature having unquestionably an influence on each other, (or for what other purpose are they created?) it follows that water will be affected by air, as, *by experiments* has often been exhibited; and the bubbles that rise to the surface of ponds in hot weather, are formed by the effect of air drawn out by rarefaction of the atmosphere, and to preserve the equilibrium. Air is in like manner impregnated with fire, or the electric fluid; and those purer elements that amalgamate and fill the ethereal space, act upon the atmospheres of all planetary bodies, and, by reaction from one to another, according as the motions of those bodies give them activity. Whatever, therefore, any planetary body may have to do with the phenomenon of the tides of the ocean, must be through the agency of those communicative elements, and directly through the earth's atmosphere; consequently, the air is the immediate and relative cause of the elevation or swelling of the ocean, which rises up to replenish a *vacuum*, that the exit of imperceptible elements has left in the circumambient air. It is a sort of general effect, like that which causes exhalation or absorption; but instead of small particles of water being conducted high in the air, through capillary interstices of indefinitely refined elements, the whole mass is mounted upwards, and of course, floats off like an aquatic body on an inclined plane, seeking a level; by which creeks are filled, and rivers arrested and turned back towards their sources. This effect has rather erroneously been called attraction, but, as has been before observed, it really means gravitation. It is part of that universal and endless effort of nature to perfect an equilibrium, which never can be, while congregated matter in millions of orbs, continues to float in ether, launched forth by the almighty hand that made them. These can find no centre, as universe has no circumference, and therefore, can never be at rest; hence will the elements continue to act upon each other, and upon concrete substances, so long as these bodies keep their motions, and thereby move and agitate them. It is from the sun, at the centre of our system, that all the planets receive their influences; and all the effect our moon can have on the waters of the globe, is by a secondary power, derived from that great governing luminary: but that it has an effect in augmenting the tides, though of a minor kind, circumstances and coincidences are too strong to leave it doubtful. Those tides most affected by the moon are called spring tides, from their springing or rising higher than the neap tides. These spring tides occur at the full moon, or at the new moon, when that orb is geocentrically either in opposition or conjunction with the sun, and when the primary influence of the latter is aided by the secondary influence of the former.

But there is another cause, distinct from the effect of those elements, that the sun agitates, or that the moon reflects; and this is the diurnal motion of the earth herself, which must and certainly does cause a flux of the sea, inclining from east to west, her rotative motion being continually eastward, towards which her solid parts will proceed without expansion, while the greater elasticity of the ocean causes it to give way to the impulse, and become rolled, by resistance of the medium through which it has to pass, into an aquatic ridge, which must subside into small seas, bays, creeks, &c., and cause an increase of their depths; till, having passed them, the redundancy of water again returns

to the ocean. This theory is corroborated by the circumstance of the tides being later in their return each succeeding day than the former; which is exactly the case, when any machine, with water on its surface, is rapidly turned round; a small ridge of water may be observed, that will not move so fast as the surface on which it is placed, and, consequently, seeks to run off to a level; but this, though a simile, is not a complete illustration of the effect. Tides of the ocean are, however, caused by those central revolutions, but their increase and decrease by other agencies, such as the effects of the elements affected by the sun, or reflected by the moon, the course and strength of winds, &c., and the intervention and obstructions of land, islands, &c.; and this is the reason why small seas have small tides, and some of them none at all; and also why the western shores of large continents are almost strangers to them, because they are propelled westward; or, rather, the water is retarded from accompanying the eastward diurnal revolution of the globe, and so seems to go westward. The effect of elements on the tides, which are influenced by the sun and moon, in a major degree by the former, is when, as before observed, they have an united effect, and both contribute to that elementary vacuity of the earth's atmosphere, which causes a lifting up of the waters, or a swelling of them, by reason of withdrawing some of the superincumbent elements of the atmosphere. The bodies themselves of the sun and moon do not interfere; it is the elements that those bodies effect by their magnitudes and motions. The high tides are either when the sun is on the meridian of our longitude, or that of the opposite hemisphere. As to the times of high water, the calculation is made by the moon's age, they being about fifty-one minutes later every day, but not regularly, as many circumstances will accelerate or retard the flowing and ebbing of the tides.

To be continued.

OF FLOWERS.

FLOWERS are among the most beautiful of the works of nature, gratifying the eye with every variety of shade and colour; from the most brilliant and gorgeous to the most modest and retiring; from the splendid tulip, to the pale and modest lily.

The contemplation of a flower-garden is delightful, even as a mere sight, and it is peculiarly fitted for young persons. It is, indeed, almost discreditable to be unacquainted with the nature and phenomena of these beautiful creations. The habit of contemplating them is exceedingly favourable to virtue and calmness of mind; and some of the wisest and best of our species have been remarkable for their love of this kind of study.

To a fanciful mind there is scarcely any one thing in nature from which an obvious and striking moral may not be drawn. While gazing, for instance, upon a flower-garden, how naturally do we compare the difference which is so obvious among flowers, to that which exists amongst the various individuals of the human race. The tulip, the gaudiest and most gorgeous-coloured of all the flowers, is utterly destitute of scent, and completely useless; while some of the most homely looking are characterised by the possession of the most fragrant and powerful odours. The night-violet is beautifully scented, yet it is at the same time one of the meanest, and unattractive in its appearance. A small bed of these will, at dusk of

evening, perfume the air for an immense distance round; and yet so little conspicuous are these odorous little flowers, that, unless previously acquainted with their appearance, no one would suspect that the beautiful fragrance sprung from them.

It is similar with mankind. The best and most admirable of our race have frequently less to boast of, as to personal appearance and mere showy accomplishments, than the worst and most worthless. The weak, the selfish, and the wicked, frequently possess a sufficiency of outward ostentation to attract the attention, and to secure the applause, of the thoughtless million. Though destitute of solid ability, such persons frequently possess great address and great presumption; and as the majority of mankind are utterly incompetent to form a rigid and correct estimate of character, false pretensions, which are plausibly set up and boldly maintained, are frequently allowed, when really just ones are opposed or neglected. The truly good and great, on the other hand, rich in wisdom and in virtue, are very frequently modest, even to excessive and painful diffidence.

The tulip, gaudy and conspicuous, has for a season the advantage of the odorous and modest violet: but that season is but a very brief one. The eye soon tires of gazing upon glaring and beautiful colours; and the sight which at first excited admiration, in time becomes irksome, and almost painful. The delicious fragrance of the retiring violet soon attracts the student of nature from the scentless, though splendid tulip; and the good sense of most persons causes them to admit, that if the latter be the more beautiful, the former is by far the more estimable.

Thus also is it with mankind. Though the weak and the worthless may dazzle the world for a time, they cannot permanently deceive it; and though the good may for a while be left in obscurity, which their native modesty induces them to choose, their good works, like the fragrance of the violet, will direct attention to them, and procure them the love and estimation they deserve.

TORNADO AT UTICA.—Our city was visited yesterday by one of the severest and most appalling thunder-storms, accompanied by a complete hurricane of wind, hail, and rain, ever experienced by our inhabitants. The storm came up suddenly at half-past four, P. M. and lasted about ten minutes. The rain and hail fell in torrents; and the wind blew with a fearful and desolating wrath. For a few minutes it seemed as if nothing could withstand its fury. Dry good boxes and awnings in Genesee-street were seen flying in the air like the fallen leaves of autumn; horses were frightened, and carriages upset; indeed, the whole mass of earthly things appeared to be moving, and yielding to its mighty power. The storm abated, and the destruction which was so fearfully going on was fortunately terminated. Our streets were flooded with water; and thousands of panes of glass have been destroyed by the force and magnitude of the hail. Throughout the whole extent of damage and destruction of property, however, we are happy to state no lives were lost, nor any person, surprising as the fact may be, materially injured. Of the amount of damage it is impossible for us to form a correct estimate; probably it will exceed 25,000 dollars.—*Utica Observer, Sept. 15, 1834.*

The assumption of merit is easier, less embarrassing, and more effectual, than the positive attainment of it.—*Anon.*

GENIUS.

WHILE we see and acknowledge the existence of genius, it does not appear that any one undertakes to examine into its nature, and to describe what it really is; no author seems to have treated systematically on the subject, and men who are in possession of it remain silent respecting its qualities and attributes, probably satisfied with having it, and no way concerned as to its peculiar characteristics. From this circumstance, the idea may be deduced either that genius is not required to depict genius, or that it is averse to the investigation of its properties: it cannot be concluded that the inquiry is uninteresting, or that its nature is so apparent as to need no kind of explanation.

That it is interesting, universal admiration will prove; and that its nature is not so manifest as to need no comment, the mistakes that occur relative to it bear undeniable testimony. Every one admires and applauds genius, in whatever sphere it may show itself; but every one does not impute its operations to a right source, nor give it that sanction and *meed* of praise which is its due reward. Some persons are apt to apply that to circumstances and events favourable to success and reputation which justly belongs to genius, and even when adverse circumstances have been overcome, and difficulties surmounted by the prompt and powerful effect of genius alone; while others, and perhaps the same persons, have ascribed to genius that which was really the result of accident. This misapplication of judgment arises from not considering genius in its proper light, and shows the necessity of understanding its true character, instead of being satisfied with the splendour of its name, or dazzled by its lustre, into an acquiescence with all its pretensions: for bright and glorious as is the luminary of day, experience has demonstrated that reflections of the atmosphere will present false suns; and a like delusion may accompany the rays of genius, if we have not philosophy enough to discriminate between the true and the false appearances. There are, and always have been, men, who, without genius, have artfully contrived to place themselves in a position to intercept the beams of glowing intellect, and to circle the head with the glory of a name, surreptitiously obtained, that better deserved a cap of a certain description; and the opportunity is often afforded to those presumptuous persons by that innate modesty which attends and keeps backward real merit and true genius.

This great and important attribute of the human mind is unquestionably the gift of God, and, therefore, should always be applied to a good account, and turned to a wise purpose. It cannot be acquired by man, nor instilled by teaching; years of study and instruction may be *wasted*, and unless genius be previously there, it will not appear at last. It is not indigenous to the field of literature, nor the garden of philosophy; for how often do we see it there transplanted, drooping on the withered stem of science, while it blooms and flourishes in native strength and beauty on the bleak mountain of rugged rusticity, or blossoms in the valley of neglected obscurity. Hail to thy bright idea, thou poetic spirit, immortal Gray!

"Full many a gem of purest ray serene,
The dark unfathom'd caves of ocean bear;
Full many a flower is born to blush unseen,
And waste its sweetness on the desert air."

Genius then, being a heavenly endowment, cannot be gained by art; but notwithstanding its independence as to the soil in which it springs up, it will be the better for culture; and if it cannot be sown with success in the fertile

regions of science, it may be fed and nourished by bringing and applying to its root where it grows, the rich and fertile *mould* of a prolific *parterre* of odorous and delightful flowers of wit and refinement.

To describe genius properly, we ought first to consider in what it consists, and then to examine into that medium in which it shows itself, or rather into the various stations in which it has acted and approved its operations. Genius in its aggregate capacity consists in the possession of a capacious and comprehensive mind, stored with numerous ideas, strong, clear, and distinct, and with skill and presence of mind to call those ideas into action, in all cases of emergency, in study, and in difficulties; for it is then that the energies of the mind summon a whole train of ideas to undertake the enterprise, or encounter the obstacles that may oppose any undertaking. As to the instances or stations in which genius has been conspicuous, history and biography will furnish us with plenty of specimens; and in all these instances it will be found that not human ingenuity and tuition, but another and a secret finger has pointed to the way and disclosed the mystery that would otherwise have been for ever kept from human perception in impenetrable darkness.

But not only must the mind grapple with, and embrace many ideas, it must also be able to marshal and arrange them in a regular train; otherwise, like undisciplined troops, they will create confusion, and achieve no great enterprise. They will cause a total defeat of genius in every noble attempt; their order, as well as their number, is a matter of high importance, with a view to success, whether it be in pursuit of invention, or the reputation of skill and facility in the practice of good writing, style, and authorship,—of poetry it is difficult to speak. In that divine science all is genius, and of so mystical a kind, that it seems only within the power of an angel's pen to give it an ideal representation; it must be thought and contemplated, not spoken, unless by its own tongue, or as music issues from the Eolian harp, when an invisible touch sets the strings in motion, and vibrates celestial sounds on the astonished air.

If we want to be convinced of the divine origin of genius, we should look to the history of inventions, and by whom such inventions have been brought to perfection. The first attempt at the machine called a jenny, for the spinning of cotton, was made by an illiterate workman; and, subsequently, the whole fabric of the machinery for that great national manufacture, the fabrication throughout of cotton goods, was projected and completed by a man* who had never trod the paths of science, nor breathed the air of literature. That mighty machine, the steam engine, owed its origin, as it still does its use, application, and construction, to native genius and mechanical ingenuity, which triumphed, as it ever will, over the dogmas of *Euclid*, and all the schemes, plans, and designs, of demonstrative mathematics. That which comes from above can have no competitor on earth, and vain will be the skill and wisdom of men if no hand from on high show the way, and direct the work; for however the pride of learning may flatter and provoke to the united efforts of ambition, and the designs of human art, the confederated labour and skill of man, independent of the sanction of divine communicative genius, will produce nothing but a *Babel* at last. Genius is more easily discovered in its existence, than traced to its source; it is a spring on a mountain: we behold it there, and quench our thirst of knowledge, but whence its pure and ever-flowing waters are supplied, the deep recesses through

* Sir Richard Arkwright, originally a humble barber.

which they have to pass hide for ever from our sight, and forbid us to explore. We know the spring is there, but how sustained we cannot find out. In its existence genius, like the spring, is seen and realized; it shows itself in various ways, and cannot be hidden, unless from those who are blinded by ignorance, or hoodwinked by prejudice. What gave the immortal Nelson his glory and his victories, and what entitles him to posthumous and perpetual fame? His genius. What has made Shakspeare, and even Burns immortal? not learning, but genius; and what is it that stamps on the name of Britain the mark of distinction above all the nations of the world? *The native genius of her people.* Others have talent as well as the British, perhaps in a superior degree; but there is this difference between *talent* and *genius*, that the former applies to individual things only, the latter to the whole scope of skill, enterprise, and perseverance. A logician has talent, so has a mathematician; but a simple knowledge of those sciences does not make a genius: it requires a congregation of talents to make one. Sir Isaac Newton was a genius, and perhaps Bacon Lord Verulam; and these examples, contrasted with the dabblers in arts and sciences, and the babblers in oratory, may sufficiently explain the difference between what is called talent and real genius. Yet we must allow that where a genuine light of intellect appears in the untaught mind, it is at least a ray of genius; and this will appear by contrast with other persons in a similar sphere of life, and who are placed in like circumstances. Genius always ascends; and though it may dissolve like a meteor by too much expansion, it will cast around the vanishing stars a transient lustre, and even die in splendour; but where it is not, the intellect is chained to earth, and is for ever in a mist of darkness. Provoke discussion, and if a man has any genius himself, he will soon find out its presence or its absence in another person.

Talent is partly communicative from one man to another, and may be taught; it very much depends on practice and experience. Thus a man may *acquire* a talent for eloquence, or a talent for business, but at the same time be destitute of genius, at least of genius in a superlative degree; and it may be contended, not without an appearance of plausibility, that those minor talents are a drawback upon genius, and as fetters to its free exercise and unbounded range. Great genius is, perhaps, averse to the drudgery that talent may cheerfully undertake. It is mentioned of Dr. Samuel Johnson, that being asked why men of genius could not conduct the business of trade, &c., so well as men of common understanding, he replied, they were not incapable, but it would be preposterous to put on the back of a fine *charger* the panniers of an *ass*. This figurative sarcasm on the querist was, perhaps, more ingenious than mannerly, but, nevertheless, it was apposite to the subject, and very illustrative of the fact specified. In common conversation and social intercourse genius also sparkles. One man will speak of surrounding objects with cold indifference and heavy detail, while another will give warmth and animation to his descriptions; the former tells his story in a plain, perhaps not very perspicuous, manner; the latter adorns it with lucid remarks, and picturesque displays of metaphor and vivacity, and, if free from pedantry, his society is as superior to the other as May-day to the New-Year's day: it warms into life, while the other freezes into torpidity.

But let not him who has genius, of which he cannot be ignorant, assume a self-importance on that account, for vanity is a cloud before the sun of intellect that obscures the brightest day, and impairs the most glorious light; rather let him, with humility, hold out its light to those that are

in darkness, remembering that all excellencies and great endowments are for the good of all mankind, inasmuch as they are the gifts of God!

HINT FOR THE HAUGHTY.

THE vulgar have a proverb in very general circulation among them, that the greatest men have always the least pride. This proverb, like most of the national proverbs, is exceedingly true.

By pride, however, as the word is used in that proverb, we must understand *false* not *true* pride. Of the latter great men have, and ought to have, a very large share. It is a virtue and an ornament; but false pride is at once a vice, and a very ungraceful weakness. It is a want of affability, and it involves, also, a considerable share of ill-nature.

George III., who had as much true, virtuous, and honest pride, as any man, living or dead, was a perfect pattern of good-nature and affability. To the meanest of his subjects whom he chanced to meet, he had ever some kind and condescending words to address; and he who could command the services and the attention of the proudest nobles, would enter into long and familiar conversations with the poorest peasants.

Walking out one day with the heir apparent, in the neighbourhood of Windsor, the royal pair came up with a heavily laden cart, which the driver was vainly endeavouring to aid his horses in extricating from a deep rut into which one of the wheels had sunk. The king and prince, who were, as was their custom, very plainly dressed, applied their strength to the wheel, and effectually aided the man in setting the cart at liberty.

Having no suspicion of the rank of his assistants, the man bluntly and heartily thanked them for the service they had rendered him, and added that if they would go as far as the nearest public house, he should be glad to treat them to a tankard of ale. The offer was, of course, declined; but, pleased with the hearty and evident gratitude of the poor man, his royal friends gave him a couple of guineas and took their leave. The gratitude of the rustic made the fact known all over Windsor, in the vicinity of which town, as we have observed, the occurrence took place; and the anecdote, therefore, rests upon a better foundation than such anecdotes, generally speaking, do rest.

It is in the power of only a very few of us to give away gold, as in the above case; but it is in every one's power to imitate that condescension for which every one who reads the above anecdote will admire and respect our late king and his noble father. Opportunities are perpetually occurring of our doing essential services to our fellow-creatures without injury to ourselves; and even when our services are not required, we may, by a kind and affable manner, win that esteem and that consideration which always are, and which always ought to be, denied to insolent haughtiness of speech, and to contemptuous indifference of behaviour. That proverb which we quoted at the beginning of this article, furnishes us with an infallible guide for our behaviour to our inferiors. To conduct ourselves properly to them, we have only to bear in mind that "The greatest men have always the least (*false*) pride."

NORTH AMERICA.

(Concluded from page 391.)

UPPER CANADA is bounded on the north by New Wales and Lower Canada; on the east by Lower Canada and New York; on the west by the Red River settlement of the Hudson's Bay Company; and on the south by the United States. The chief rivers are the *St. Lawrence* and the *Ottawa*; and the land, particularly along the rivers, is very rich. The principal occupation of the inhabitants is in the culture of wheat; and the executive government is administered by a lieutenant-governor, appointed by the British crown. The judges and council are also appointed by the crown; and the house of assembly is chosen by the people. The chief towns are *Kingston*, on lake Ontario; *York*, on the same lake; and *Newark*, at the mouth of the Niagara river. There are two fine canals in this province; the one is the *Welland Canal*, which runs forty-one miles, and is navigable for schooners of 100 tons, and the other is the *Rideau Canal*, running about 160 miles. The locks of this canal are thirty-three feet wide, and five feet deep, being intended for the passage of steam boats.

NEW BRUNSWICK is bounded on the north by Lower Canada; on the east by the Gulf of St. Lawrence; on the west by the state of Maine; and on the south by the Bay of Fundy. Its chief rivers are those of *St. John* and *St. Croix*; and its bays are those of *Fundy*, *Chaleur*, and *Miramichi*. The soil is of a middling quality, and the forests furnish excellent pine timber, of which great quantities are exported. The occupation of the inhabitants is generally in agriculture and the fisheries. They carry on an extensive and profitable trade with Great Britain and the West Indies. The principal article of export is lumber.

The government is vested in a lieutenant-governor, who, with the judges and council, is appointed by the king. The members of the house of assembly are twenty-six in number, and are chosen by the people. The seat of government is at *Frederickton*, on the *St. John's* river; but the city of *St. John*, at the mouth of the river, is the chief town of the province.

NOVA SCOTIA is bounded on the north by the Gulf of St. Lawrence; on the east and south by the Atlantic Ocean; and on the west by the Bay of Fundy and New Brunswick; and, including the island of *Cape Breton*, which belongs to the same government, it comprises an area of 19,000 square miles. The coast is much indented by bays, and its rivers are generally small. This province abounds in lakes; and produces coal, iron ore, gypsum, and limestone. Its climate is cold, but healthy. The inhabitants are mostly employed in agriculture and the fisheries. The government is vested in a lieutenant-governor, commander-in-chief, and a legislative council of twelve members, appointed by the king, or by the governor for life; and a House of Assembly of forty-one members, chosen by the people of the counties and the principal towns. The judges are appointed by the governor. The chief town is *Halifax*, which is situated on the Atlantic Ocean, and has a fine harbour; it is the seat of government, and a place of the greatest trade in the province, and is one of the British naval stations. The other principal towns are *Anapolis*, *Liverpool*, *Windsor*, and *Yarmouth*.

PRINCE EDWARD'S ISLAND is situated north of Nova

Scotia, in the Gulf of St. Lawrence, and is 120 miles long, and 35 broad. The soil is good, and well adapted to agriculture, particularly the raising of wheat. The government is vested in a governor and chief justice, who are appointed by the crown; and a legislative assembly chosen by the people. Its chief town is *Charlottetown*, which has a good harbour.

NEWFOUNDLAND is an island situated at the mouth of the Gulf of St. Lawrence. It is 400 miles long, and 200 broad. The climate is extremely cold; and the inhabitants subsist by the fishery, which is carried on to some extent. The governor is appointed by the British crown; and *St. John's*, in the south-eastern part of the island, is the chief town and seat of government. *Placentia* was formerly a large French settlement, but it is now reduced to a few inhabitants.

The only possessions the French have in North America are three small islands near the coast of Newfoundland, called *St. Pierre*, and the two islands of *Miguelon*.

RUSSIAN AMERICA.

This territory is situated on the north-western coast of America, opposite to the possessions of Russia in Asia. It is bounded on the north by the Frozen Ocean; on the east by British America; on the west by the Sea of Kamtschatka and Behring's Straits; and on the south by the Pacific Ocean. The country is cold and mountainous, and the interior is entirely unexplored, and inhabited by ferocious tribes of Indians. On the south-western coast of this territory is a large group of islands, called the *Aleutian Islands*, upwards of a hundred in number; the chief are those of *Kodrak*, *Unmak*, and *Oonolaska*. They are rocky and mountainous, and the inhabitants subsist chiefly on fish, sea-dogs, and the flesh of whales. The Russians employ them as slaves, and treat them with great severity.

MEXICO, OR NEW SPAIN.

This country is bounded on the north by the United States; on the east by the United States, the Gulf of Mexico, and Guatemala; and on the west by the Pacific Ocean. The principal rivers are the *Colorado*, *Rio del Norte*, *Zacatula*, *Santiago*, and the *Colorado* of the west.

The chief mountains are those of the *Anahuac* in the south; *Sierra Madre* in the centre; and *Sierra de los Mimbres* towards the north. The highest mountain is *Popocatepetl*, a volcano, which is 17,720 feet above the ocean. This country enjoys every variety of soil and climate; but the low country is hot and unhealthy, and much of the soil is dry and barren. In the warm districts the banana forms the principal vegetable food of the inhabitants; the manioc is also another article of produce, besides Indian corn, wheat, potatoes, sugar cane, cotton, coffee, cocoa, indigo, and tobacco. The population is estimated at between seven and eight millions. The government of Mexico is a federal republic, after the model of that of the United States. There are nineteen states, which have separate local governments, but united under a national constitution, with a general government. The executive power of the Union is vested in a president, who, with a vice-president, is chosen every four years. The legislative power is vested in the congress, which consists of a senate, and a house of representatives.

The established religion is the Roman Catholic, with one archbishop, and eight bishops, who, with the entire

clergy, are paid by the state. The chief articles of export are gold and silver, cochineal, indigo, and barilla. The principal articles of import are cotton and silk goods, wine, and Spanish brandy. The revenue is about nine million dollars per annum. The navy consists of a ship of the line, two frigates, and a few smaller vessels. The capital of the country is *Mexico*, which has been fully described in No. CXXVIII. of *this Work*. The other principal cities are *Puebla*, *Guanaxuato*, *Zacatecas*, *Vera Cruz*, and *Acapulco*. The two last are the principal sea-ports.

CENTRAL AMERICA.

This large tract of country adjoins Mexico, and occupies an area of 150,000 square miles, and is divided into five states, which are subdivided in forty-five partidos, or districts. Its principal rivers are the *Polichio*, *Montagna*, and *Ullua*. The country is generally uneven, but the soil in many parts is extremely productive, yielding almost every kind of fruit throughout the year. Its valuable exports are indigo and cochineal; it produces also tobacco, cotton, wheat, cocoa, and the sugar cane. The population is estimated at upwards of 1,500,000.

The provinces forming this government remained subject to the king of Spain until 1821, when, for a short time, they were united to Mexico; but in 1823, Guatemala declared herself independent, and the constitution of the republic of central America was formed after the model of that of the United States. This constitution was adopted by the states of *Guatemala*, *San Salvador*, *Nicaragua*, *Honduras*, and *Costa Rica*. The congress consists of a senate, and a house of representatives. The members of the former are two from each state; and of the latter, one member for every 30,000 inhabitants, chosen for two years. The present number of members is forty-six. The president and vice-president are chosen for four years. The principal towns are *Guatemala*, *Leon*, *St. Salvador*, *Chiquimula*, and *Cartago*. The principal sea-port is *Omoa*.

BELIZE is a settlement belonging to Great Britain, on the river Belize, in the bay of Honduras. The colony consists principally of the town of Belize, at the mouth of the river; it carries on a large and profitable trade in mahogany, and in supplies of manufactured goods from England, for the neighbouring countries of central America.

GREENLAND is an island in the north-eastern coast of America, separated from the main land by Davis's Straits. It is a mountainous and rocky country, and very barren. The rein-deer, white bears, hares, and foxes, are to be met with; and also numbers of aquatic birds, seals, and fish, which are the chief dependence of the natives.

There are eighteen original settlements from Denmark, and several smaller ones scattered along the western coast. They are divided into two *Inspectorates*, northern and southern. The principal settlements are *Julien's-Haab*, *Lichtenfels*, *Sukkertop*, and *Disco Bay*.

The most northerly settlement is *Upernivik*, in lat. 73°. The whole Danish population is about 6,000, and the government is administered by two inspectors, and a number of inferior officers.

BERMUDA ISLES are a cluster of about 400 small islands, belonging to Great Britain, but most of them are uninhabited. They are situated in the Atlantic Ocean, about 700 miles from the coast of the United States. The principal island is *St. George's*, which has a good harbour, and is a station for the British navy, with an arsenal, and extensive military and naval stores. The climate is mild

and healthy, and the soil fertile, producing two crops of corn in a year. It produces olives, oranges, pears, and other fruits in abundance. The population is estimated at upwards of 4,000. The islands together are said to have 12,000 inhabitants, of whom a great number are blacks. They have a governor appointed by the British crown, and a legislative assembly elected by the inhabitants.

HISTORICAL & BIOGRAPHICAL MEMORANDA FOR NOVEMBER.

November 1st, 1755, will ever be memorable in the history of those awful calamities which fill the world with consternation and dismay. On that day, the most dreadful earthquake on record took place; the effects of which, though most disastrous at *Lisbon*, were felt in various other parts of Europe, and which extended its frightful ravages to Algiers, Morocco, and other places in Africa; where thousands of lives were lost, and immense destruction of property occurred.

On this day, in 1609, was born, that eminent and incorruptible judge, *Sir Matthew Hale*, chief justice of the King's Bench; a man of whom it has been truly said, that no influence or power could turn him aside from the path of rectitude.

November 2d, in 1172, *King Henry II.* landed in Ireland, at the head of his army, and obtained, from Earl Strongbow, a surrender of the city of Dublin.

On this day, in 1818, that bright ornament of the bar and senate, *Sir Samuel Romilly*, in a fit of temporary insanity, put a period to his existence.

November 3d, in 1580, after an absence of nearly three years, *Captain Francis Drake* returned from his first voyage round the globe.

On this day, in 1640, the fatal *Long Parliament* assembled; and in the ensuing year commenced that dreadful rebellion which will ever remain a foul blot on the annals of England.

November 4th, 1688, may be regarded as the day on which the *Stuart* family ceased to influence the affairs of Great Britain, and the era of the *Glorious Revolution*; the Prince of Orange, afterwards King William, having this day landed on our shores, with an army of 14,000 men.

On this day, in 1530, *Cardinal Wolsey* was attainted of high treason.

November 5th, 1605.—At a moment so exciting as the present, when the awful conflagration of both houses of Parliament is the all-absorbing topic, the mind naturally recurs to the famous *Gunpowder Plot*, concerted by the bigotry of papal intolerance, but happily frustrated by the merciful interposition of Providence, through the means of one of the conspirators having sent an enigmatical letter to Lord Monteagle, warning him not to attend his place in Parliament on the day intended for the consummation of the horrid design.

November 6th, 1817.—No day in the modern annals of our country's history ever presented so universal a feature of gloom and deep regret as this. The British nation had hailed the free-hearted and amiable *Princess Charlotte* as their future queen, and fondly imagined that they saw, through the vista of futurity, prospects of bright and glorious days. How soon, alas! were those happy visions to pass away! A twelvemonth had scarcely elapsed since her union with Prince Leopold, when she was snatched, by relentless death, from the arms of him to whom she was most tenderly attached, and from a people whose admiration and delight were turned into the most poignant affliction. Outward pomp and funereal grandeur, unallied to real sorrow, are often the accompaniments of regal dissolution; but here the nation mourned as members of one family, and felt that they had sustained a loss at once deep and irreparable.

AUSTRALASIA.

AUSTRALASIA, or, as it is sometimes written, AUSTRALIA, from *Terra Australis*, or Southern Land (though the term Australia is more generally confined to the principal island, which at first was called New Holland), is, by a modern arrangement, considered as a fifth great division of the terraqueous globe, in distinction from the older terrene divisions of Europe, Asia, Africa, and America; in fact, a kind of anomaly in geographical classification, inasmuch as it comprehends a multitude of islands, instead of one continent, as in the other divisions of the world, in which were included various kingdoms circumscribed by one shore, together with the islands that lay contiguous to them.

The tract of ocean and its islands denominated Australasia, is bounded on the north by the equator; on the east by a line drawn on the 186th degree of east longitude, to the 55th degree of south latitude; on the south by the 55th parallel; and on the west by a line drawn from the north-west Cape of Hapau, to the 65th degree of east longitude, on the 55th parallel; making an irregular four-sided figure, extending upwards of 5,000 miles in average breadth from east to west, and about 3,200 miles from north to south.

In regions so extensive and so isolated, we must naturally expect to find races of mankind differing widely from each other, and requiring a particular specification. We shall, therefore, in the first place, endeavour to give, in chronological order, a brief account of the discovery of these islands, at the same time noting the broad outlines of character by which their respective natives are distinguished.

1. PAPUA, or NEW GUINEA.—This country was discovered by the Portuguese in 1526. The natives greatly resemble the Negroes of Guinea.

2. NEW HOLLAND.—The exact time of its discovery is uncertain; but the first authentic account of its being visited, is by the Dutch, in 1606. Dampier describes the natives as a remarkably barbarous race of Negroes—savages, whose features and general appearance were quite disgusting.

3. SOLOMON'S ISLANDS, of which the principal are Buonavista, Florida, Galera, Guadalcanar, Santa Ysabel, San Christoval, San Catarina, and Santa Ana. These were first discovered by the Spaniards in 1567, but not visited again until 1767, by Carteret. Many of them are described as very fertile, but the inhabitants are reputed cannibals. These islands extend from 5° to 11° south latitude, and from 155° to 162° 30' east longitude.

4. THE NEW HEBRIDES.—This name was given by Captain Cook, who explored them in 1774; but they were originally discovered by the Spaniards in 1606. The principal island of this group is Terra del Espiritu Santo, which lies in south latitude 14° 30', east longitude 167° 30'. The inhabitants are here more civilized; the country is very fruitful; and, in some of the islands, considerable attention is paid to the plantations.

5. NEW BRITAIN, NEW IRELAND, the ADMIRALTY ISLES, &c. The Spaniards were here also the first discoverers, in 1616. The natives of New Britain and Ireland are Negroes; but those of the Admiralty Isles approach

nearer to the Malay character. All the islands are fertile and well watered, forming a crescent, whose centre lies in south latitude 50°, east longitude 150°.

6. VAN DIEMAN'S LAND.—This was discovered by the Dutch in 1642, but it was not ascertained to be an island till 1798, when it was explored by Captain Flinders and Mr. Bass. The inhabitants are similar to those of New Britain.

7. NEW ZEALAND, with CHATHAM ISLAND.—The former was discovered by the Dutch in 1642, the latter by the English in 1791. The inhabitants are represented as remarkably strong, active, and barbarous; having, at the same time, many singular traces of civilization.

8. ST. PAUL and AMSTERDAM.—These islands, which were discovered by the Dutch, in 1696, are uninhabited; Large quantities of seals are caught on the shore.

9. KERGUELAN'S LAND, or Island of DESOLATION. This uninhabited and barren spot was first discovered by the French in 1772.

10. NEW CALEDONIA.—Our countryman, Captain Cook, discovered this island in 1774, the inhabitants of which are honest and affable; and they are of a light complexion. The country, though by no means fruitful, is occasionally laid out in plantations.

To the foregoing list must be added, the almost innumerable small islands which lie scattered throughout the Pacific Ocean, and which, in contradistinction to the larger ones of New Holland, Van Dieman's Land, New Guinea, &c., have collectively received the appellation of POLYNESIA, though the general title of AUSTRALASIA is the name by which the whole of this vast insular and aqueous region is now generally denominated.

The SANDWICH ISLANDS.—These are eleven in number, and extend in lat. from 18° 54' to 22° 15' north, and in long. from 150° 54' to 160° 24' west, being situate in the North Pacific Ocean. The principal island of this group is Owyhee, where Captain Cook was so inhumanly murdered. In their persons, language, customs, and manners, the natives of these islands approach nearer to the New Zealanders than to their less distant neighbours, either of the Society or Friendly Isles. Tattooing the body is practised by every colony of this nation; and human sacrifices are frequent among them. Not only at the commencement of a war, or signal enterprise, but the death of every considerable chief calls for a repetition of these horrid rites; yet those who have visited them declare that they are of a mild and affectionate disposition; live in harmony and friendship with each other; and, when their resentment is not kindled by injury, they are not exceeded, even by the inhabitants of the Friendly Islands, for hospitality to strangers.

The SOCIETY ISLES.—These were discovered by Captain Cook, in 1769, and so named by him because they lie contiguous to each other. They are situated between the latitudes of 16° 10' and 16° 55' south, and between the longitudes of 150° 57' and 152° west. The inhabitants throughout these islands greatly resemble in language, religion, customs, and manners, those of the principal one, Otaheite, hereafter described. The soil is equally fertile, and the people are as fond of ease and indolence.

The FRIENDLY ISLANDS.—These islands, of which there are sixty, are situate in the South Pacific Ocean, and were discovered by Captain Cook, in 1773, who named them the *Friendly Islands*, on account of the friendship that seemed to subsist among the inhabitants, and their courteous manner to strangers. The principal of them were, however, first discovered by the Dutch, in 1643, but Cook explored the whole, which lie between 19° 40' and 21° 30' south lat., and between 170° and 180° west long.; in fact, under the general name of the Friendly Islands are often included Boscawen's, Keppel's, and Prince William's Islands, making the whole number about 150.

Their general appearance conveys an idea of fertility amounting to exuberance; and many of the richest productions, such as bread-fruit, figs, cocoa-nuts, plantains, yams, sugar-cane, &c., are successfully cultivated by the natives.

As it will be necessary to speak of the manners, customs, &c. of the natives of these islands, we prefer taking a sketch of one, which, from various causes, has borne a more prominent figure in the voyages of our countrymen, than attempting to describe the shades of difference which mark the habits of the whole,—an attempt, indeed, almost impossible; or, if possible, destitute of interest. We, of course, select—

OTAHEITE.—This island, which ranks as the principal of that large group, called the Society Isles, is about ninety miles in circumference, and was first known to the English, by the discovery of Captain Wallis, in 1767, who gave it the name of George the Third's Island. Bougainville next arrived at it, in 1768, and staid there ten days. In the following year, Captain Cook, in the *Endeavour*, reached it; and as his mission was to observe the transit of Venus, he sailed round the whole island in a boat, and staid at Otaheite three months; and it was afterwards twice visited by that great circumnavigator. It consists of two peninsulas, great part of which is covered with woods and forests, consisting partly of bread-fruit trees, palms, cocoa-nut trees, plantains, bananas, mulberries, sugar-canes, and others peculiar to that climate, particularly a kind of pine-apple, and dragon-trees.

The natives are about the largest size of the Europeans, of a clear olive or brunette complexion, with fine black hair and eyes, and a mild and pleasing countenance. Round the middle they wear a piece of cloth, of their own manufacture, and another piece wrapped about the head, in various picturesque shapes, like a turban. The women, who are said to be really handsome, wear a garment of cloth, which is suspended from the shoulders, and hangs down behind and before, as low as the knees. A fine white cloth, resembling muslin, passes over this in various elegant turns round the body, a little below the breast, forming a kind of tunic, of which one turn sometimes falls gracefully across the shoulder. Both sexes are, however, disfigured by tattooing, but which they deem highly ornamental, and prize themselves on it accordingly. Still they must have been a race much superior to what our navigators expected to find, or it would be impossible to account for the praises which are lavished upon them by Mr. Foster, and others, who resided there sufficiently long to be well acquainted with their persons, manners, and dispositions, for they are described as gentle, good-natured, and hospitable; while the air, features, and natural gracefulness of some, particularly those of the higher sort, (for in this society the various grades are distinctly marked,)

are extolled as worthy of imitation. The two sexes eat separately, as is the case in many other countries; and long nails on the fingers are a mark of distinction among them, as with the Chinese.

The houses of the natives consist only of a roof, thatched with the long prickly leaves of the palm-nut tree, and supported by a few pillars made of the bread-fruit tree. As a roof is sufficient to shelter them from the rains and nightly dews, and as the climate of this island is one of the finest in the world, the houses have seldom any walls, but are open on all sides. The cloth of the natives is made of the fibrous bark of the mulberry tree; and a glue, made of the hibiscus esculentus, is used to make the fibrous particles cohere. Some of these pieces are two or three yards wide, and fifty yards long. This they dye either red or yellow, with colours of surpassing brilliancy; and the matting is finer and better in every respect than any we have in Europe. They are also exceedingly neat in making basket and wicker-work. Their fishing-lines are also the best in the world, made of a kind of nettle which grows in the mountains, holding the strongest and most active fish. It is remarkable, that though the natives of this island far excel most of the Americans in the knowledge and practice of the arts of ingenuity, yet they had not invented any method of boiling water, and having no kind of vessel that could bear the fire, they had no more idea that water could be made hot, than that it could be made solid. On the coast are several excellent bays and harbours, with room and depth of water sufficient for the largest ships.

Like all the islands of Australasia, the quadrupeds of Otaheite are few and unimportant; but several of the birds are of beautiful plumage, particularly their parrots; and their coast supplies them with a variety of excellent fish, in every expedient for taking which they are remarkably dexterous and ingenious.

In concluding our notice of Australasia, we ought to observe, that, owing to the superabundant population of Great Britain and Ireland, the tide of emigration has, of late years, flowed in that direction to such an extent, that flourishing colonies now exist on many parts of the coast of New Holland, New South Wales, and Van Dieman's Land; and that, aided by the knowledge, zeal, and industry of the settlers, they are already fast advancing in successful enterprise, and bid fair to reap those advantages which a fine climate and a productive soil are capable of affording.

THE FIVE SENSES.

II.—THE SENSE OF HEARING.

No. III.

(Continued from page 414.)

6. PASSAGES OF THE TYMPANUM.

FROM the descriptions and figures given, the reader will have easily conceived the bony cavity of the tympanum to be a small chamber, having an opening on one side, closed by the drum, and containing the chain of bones already enumerated. With this clearly in mind he will next consider that towards the inner side of the cavity three holes or passages open, together with some smaller ones, which we shall now describe.

1. The eustachian tube. This commences in a funnel-shaped aperture in the mouth behind the palate, and passing backwards, narrows in its diameter, and opens by a small hole into the chamber of the tympanum.

2. The oval hole, or *foramen ovale*. This is an irregularly formed oval hole, situated nearly opposite the tympanum, and opening into the vestibule or central cavity of the labyrinth.

3. The round hole, or *foramen rotundum*, is placed in the side of the cavity, and leads into one of the *scalæ* of the cochlea. Besides these holes, there are, as we have hinted above, several others of minor importance, which open into certain cavities in the substance of the bone forming the base of the skull, and called the mastoid cells, or *cellulæ mastoideæ*.



External View of the Cochlea and Semicircular Canals, of the natural size.

7. THE LABYRINTH.

The labyrinth is a collective name for three very peculiar structures which constitute the internal ear, and in which the sense of hearing is produced. These are the *vestibule*, the *semicircular canals*, and the *cochlea*. The cavities we have hitherto described are filled with air, and have a free communication with the atmosphere, but these contain an aqueous fluid in which the auditory nerves are expanded.

8. THE VESTIBULE.

This, which forms a kind of antechamber to the semicircular canals, and the cochlea, is a cavity of an oval form, covered with numerous hollows, and pierced with many holes for the transmission of the branches of the nerves. It will be recollected that the *foramen ovale* forms a medium of communication between it and the tympanum.

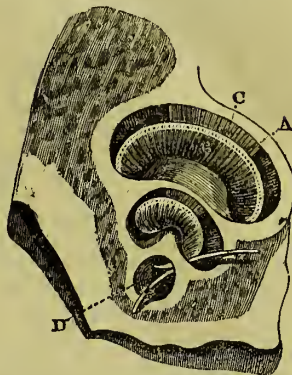
9. THE SEMICIRCULAR CANALS.

When the vestibule is cut open, five circular holes are seen, which are the mouths or openings of the semicircular canals. These canals are delicate bent tubes of bone, so small that the head of a pin will fill one of them. They are distinguished by the names, the *superior*, or vertical, the *posterior*, or oblique, and the *exterior*, or horizontal. The posterior and superior run into each other at one end, and open into the vestibule by one common orifice, which accounts to the reader for there being only *five* instead of *six* openings, as he might have supposed.

10. THE COCHLEA.

The cochlea is one of the most curious pieces of apparatus in the body, and, from its complicated structure, is so difficult to describe, that it will be best understood by reference to our figures. It consists of a central pillar of spongy bone called the *modiolus*, round which is wound a spiral chamber, which, making two turns and a half, narrowing from the base to the apex, is called collectively *scalæ cochleæ*. This is divided throughout its whole length by a thin plate of bone called the *lamina spiralis*, and of course forms a double winding passage, round the central pillar. At the apex of the cochlea these two passages open into one, and together with the termination of the modiolus, form a small chamber called the *infundibulum*. At the base of the cochlea, one of these spiral passages opens into the vestibule, and the other into the tympanum, by the *foramen rotundum*.

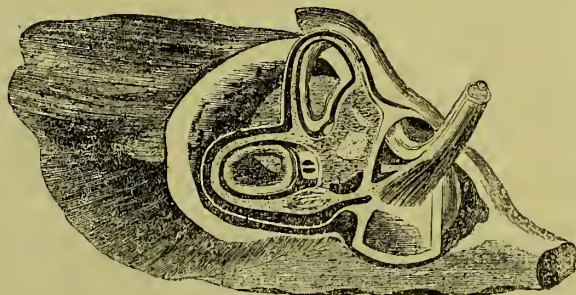
Section of the Cochlea.



A, the Modiolus; B, Lamina Spiralis; C, Scalæ Cochleæ; D, Infundibulum.

11. THE MEATUS AUDITORIUS INTERNUS.

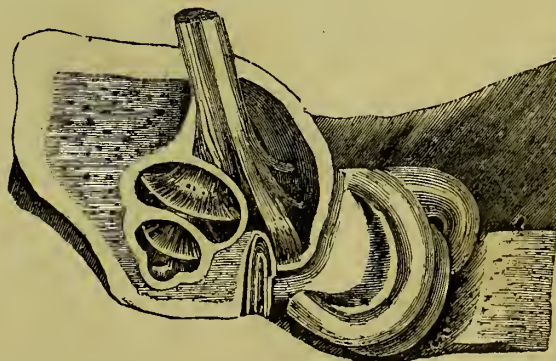
This is merely a large passage for the transmission of nerves to the internal ear.



Distribution of the Nerves in the Semicircular Canals.

12. MEMBRANES AND FLUIDS OF THE LABYRINTH.

The vestibule, semicircular canals, and cochlea, are filled with the most delicate membranes, disposed in minute bags and tubes, which articulate and interlace each other, and are filled with various watery fluids.



Distribution of the Nerves in the Cochlea, magnified.

13. THE NERVES.

The nerves of hearing, called by anatomists the seventh pair, enter the ear by the meatus auditorius internus, and are spread in beautiful ramifications upon the membranes in the labyrinth.

In our next we shall describe the connexion of these several parts, and the manner in which they discharge their important functions in the production of hearing. It will then be necessary that our juvenile friends should read this paper over again.

AN ESSAY ON THE PRIMEVAL FORM OF SOCIETY.

HUMAN nature, in some respects, is so various and fluctuating, so altered, or so disguised by external things, that its independent character has become dark and problematical. The history of the exertions of mankind in an independent state, or a state wholly unaffected by civilized habits and forms of government, would reflect a light upon moral and political science, which we endeavour in vain to collect from the annals of polished nations. What pity is it, that the transactions of this early period being consigned to eternal oblivion, history is necessarily defective in opening the scene of man! Consistently, however, with present appearances, and with the memorials of antiquity, the following changes, it is pretended, may have arisen successively to the species.

First, man may have subsisted, in some sort, like other animals, in a separate and individual state, before the date of language, or the commencement of any regular intercourse.

Secondly, he may be contemplated in a higher stage—a proficient in language, and a member of that artless community, which consists of equality, with freedom and independence.

Last of all, by slow and imperceptible transitions, he subsists and flourishes under the protection and discipline of civil government. It is the design of this essay to inquire into principles which either superseded the first, or hastened the second state, and led to an harmonious and social correspondence antecedently to the era of subordination, to the grand enterprises of art, to the institution of laws, or of any of the arrangements of nations. But it is the order of improvement merely, not the chronological order of the world, that belongs to this inquiry. Degeneracy, as well as improvement, is incident to man: and we are not here concerned with the original perfection of his nature, nor with the circumstances wherein he was placed at the beginning by his Creator.

There is one general observation strongly applicable, in all ages, to human nature,—the appearance of proper objects is essential to the exertion of its powers. As, therefore, there are talents belonging to individuals, which, for want of their objects, have lain for ever dormant; so, perhaps, there are talents inherent in the species which at no time have been called forth into action, and which may yet appear conspicuous in some succeeding period. Any alteration in the human fabric would seem to affect the identity of our being; but from the novelty and the variety of the objects with which it is conversant, the soul of man may become progressive, and without undergoing any actual transformation in its powers, may open and expand itself in energy through the successive periods of duration. The celebrated distinctions of Aristotle will then appear to have an ample foundation in nature. Thus much is certain, a mutual intercourse gradually opens latent powers; and the extension of this intercourse is generally attended with new exertions of intellect. Withdraw this intercourse, and what is man! "Let all the powers and elements of nature," says an illustrious philosopher, "conspire to serve and obey one man: let the sun rise and set at his command; the sea and rivers roll as he pleases; and the earth furnish spontaneously whatever may be useful or agreeable to him; he will still be miserable, till you give him some one person at least with whom he may share his happiness, and whose esteem and friendship he may enjoy."

Society, then, is the theatre on which our genius expands with freedom. It is essential to the origin of all our ideas of natural and of moral beauty: it is the prime mover of all our inventive powers. Every effort, beyond what is merely animal, has a reference to a community; and the solitary savage who traverses the desert is scarcely raised so far by Nature above other animals, as he is sunk by fortune beneath the standard of his own race.

The destitute condition of man, as an animal, has been the usual topic of declamation among the learned; and this alone, according to some theories, is the foundation both of social union, and of civil combinations.

After the population of the world, and the growth of arts, mutual alliances and mutual support became indeed essential in our divided system; and it is no wonder if certain appearances in the civil era have been transferred, in imagination, to all preceding times. At first, however, it may be questioned, whether there reigned not such an independence in our economy, as is observable in other parts of the creation.

It is the arts of life, which, by enervating our corporeal powers, and multiplying the objects of desire, have annihilated personal

independence, and formed an immense chain of connexions among collective bodies. Nor is it, perhaps, so much the call of necessity, or mutual wants, as a certain delight in their kind, congenial with all natures, which constitutes the fundamental principle of association and harmony throughout the whole circle of beings. But man, it is pretended, by nature timid, runs to society for relief, and finds an asylum there. Nor is he singular in this: all animals, in the hour of danger, crowd together, and derive confidence and security from mutual aid.

Danger, however, it may be answered, far from suggesting a confederacy, tends, in most cases, to dissolve rather than to confirm the union. Secure from danger, animals herd together, and seem to discover a complacency towards their kind. Let but a single animal, of a more rapacious form, present himself to view, they instantly disperse, they derive no security from mutual aid, and rarely attempt to supply their weakness in detail, by their collective strength. This single animal is a match for thousands of a milder race. The law of dominion in the scale of life is the strength of the individual merely, not the number of the tribe; and of all animals, man almost alone becomes considerable by the combination of his species.

In society, animals are rather more prone to timidity, from the prevalence of the softer instincts. Those of the ravenous class, generally the most solitary, are accordingly the most courageous; and man himself declines in courage in proportion to the extent of his alliances. Not, indeed, in that species of it, which is the genuine offspring of magnanimity and heroic sentiment; but in that constitutional boldness and temerity which resides, if I may say so, in our animal nature. Hence, intrepidity is a predominant feature in the savage character; hence, the savage himself, separately bold and undaunted, when he acts in concert with his fellows, is found liable to panic from this public sympathy—this reciprocal collision of minds. And it is hence, perhaps, according to the observation of a distinguished writer,* that the most signal

* SIR WILLIAM TEMPLE, in an Essay on Heroic Virtue, descends into the following detail, which, on account of its importance, we lay before our readers, in the words of that intelligent writer.

"The second observation I shall make upon the subject of victory and conquest is, that they have, in general, been made by the smaller numbers over the greater; against which I do not remember any exception in all the famous battles registered in story, excepting that of Tamarlane and Bajazet, whereof the first is said to have exceeded about the fourth part in number, though they were so vast on either side, they were not very easy to be well accounted. For the rest, the numbers of the Persians with Cyrus were small to those of the Assyrians: those of the Macedonians were in no battle against the Persians above forty thousand men, though sometimes against three, four, or six hundred thousand.

"The Athenian army little exceeded ten thousand; and fighting for the liberties of their country, beat above six score thousand Persians at Marathon.

"The Lacedæmonians, in all the famous exploits of that state, never had above twelve thousand Spartans in the field at a time, and seldom above twenty thousand men with their allies.

"The Romans ever fought with smaller against greater numbers, unless in the battles of Cannæ and Thrasymene, which were the only famous ones they lost against foreign enemies; and Cæsar's army at Pharsalia, as well as in Gaul and Germany, were in no proportion to those he conquered. That of Marius was not above forty thousand against three hundred thousand Cimbri. The famous victories of Etius and Belisarius against the barbarous northern nations were with mighty disproportion of numbers, as likewise the first victories of the Turks upon the Persian kingdom; of the Tartars upon the Chinese; and Scanderberg never saw together above sixteen thousand men in all the renowned victories he achieved against the Turks, though in number sometimes above a hundred thousand.

"To descend to later times, the English victories so renowned at Cressy, and Poitiers, and Agincourt, were gained with disadvantages of numbers out of all proportion. The great achievements of Charles VIII. in Italy, of Henry IV. in France, and of Gustavus Adolphus in Germany, were ever performed with smaller against greater numbers; and among all the exploits which have so justly raised the reputation and honour of Turenne for the greatest captain in his time, I do not remember any of them were achieved without disadvantage of number; and the late defeat of the Turks at Vienna, which saved Christendom, and has eternized the memory of the duke of Lorraine, was too fresh and great an example of this assertion to need any more, or leave it in dispute." Upon these incontestable facts, the argument proceeds thus: "If it be true, which I

victories recorded in the annals of nations have been uniformly attained by the army of inferior number.

But to return to the analogy of animals: I am not ignorant that some are not gregarious from necessity, are formed for offensive or defensive wars, and require joint labour for their subsistence, or accommodation. Yet in such examples, the common functions are directed by instinct rather than by art; and evidence less the policy of the animal, than, if I may call it so, the policy of nature. When those provinces* are well defined, many of the appearances we so much admire will no longer be regarded as marks of invention, or concerted plan. Where there is no option there is no agency; and within a contracted sphere, while separate acts of sagacity in various tribes are so often observable, their concurring efforts are comparatively rare. Each creature below us is constituted the sole guardian of its own privileges, and seems, as it were, a separate system; and the resources of its own constitution, its natural and its only support. Even the union of the sexes, formed for the continuance of the kind, is a temporary union, and dissolves at the instant when its operations are no longer necessary. As for larger conventions, they are often purely

think it will not be denied, that the battle is lost where the fright first enters, then the reason will appear why victory has generally followed the smaller numbers; because, in a body composed of more parts, it may sooner enter upon one than in that which consists of fewer, as likelier to find ten wise men together than a hundred, and a hundred fearless men than a thousand. And those who have the smaller forces endeavour most to supply that defect by the choice discipline and bravery of their troops; and where the fright once enters an army, the greater the number the greater the disorder, and thereby the loss of the battle more certain and sudden."

The truth of the above might be illustrated by more recent examples, and a more copious induction. The observation since our author's time is confirmed by the experience of another century. In the memorable battle of Plassy, the English army, under Lord Clive, defeated an enemy which outnumbered them ten to one.

The king of Prussia's battles in the last war would form a series of splendid examples, as also would those of Bonaparte, in support of the same conclusion, if the superior abilities of those great men were not alone sufficient to account for their superiority in arms.

But the facts above specified are fully sufficient for the ascertainment of so curious a phenomenon, on the causes of which our author has descanted with so much ability.

* There are certain principles in the constitution both of men and animals, which lead blindly and irresistibly to unknown ends. To these we give the name of instinct; and to define its exertions in all their variety and extent, forms one of the nicest questions in philosophy. The province of reason having been confined to abstract conclusions, it has been doubted whether it belongs at all to animals; and habits and instincts have been deemed sufficient to account for their whole economy. Jealous of our prerogative, we would not have inferior creatures to claim, in this particular, any kindred with the human mind.

It is, however, certain that animals are capable of recollection, and of foresight, and by consequence possess the faculty which infers the future from the past. Many of them, too, discover an inventive faculty, and when drawn into artificial circumstances beyond their usual track of life, extricate themselves with an address and sagacity that would be deemed rational in man. Admitting, then, some degree of reason as well as instinct, it is of importance to define their respective functions. It is one criterion of *instinct* to be uniform in its proceedings: *reason* is various, and supposes a choice. The one principle, as far as it extends, is infallible in its determinations; but the other principle is liable to error. The one acquires maturity at once, and supersedes experience, and is incapable of culture: the other is guided by experience, and stands in need of culture, and arrives gradually at different stages of perfection.

Instinct is fixed and immutable, not in the fabric only of a single animal; the same exertions of it are common to the species. But *reason*, which becomes more or less perfect in the same individual, is dealt out in various measure and proportion to the several individuals of the kind. These principles seem counterparts to each other in the system of creation. In proportion as the one is denied, the other comes in aid of the defect. The perception of reason would supersede the necessity of instinct, but its imperfection calls aloud for this auxiliary. Instinct accordingly is, in the human species, more conspicuous in infancy than in manhood; and reigns most absolutely in all the meaner departments of animal life. The fowls of the air, the fishes of the sea, and the insect tribes, seem wiser, in this respect, than he who styles himself Lord of the Creation. But is this the wisdom of the animal? It is rather the wisdom of nature. Nature has drawn a veil over this part of her proceedings, and that veil, what mortal can remove?

casual; and the invitation of the same pasture will at times solve such appearances, without resorting to the ties either of dependence or love. It is thus the fowls of the air alight so often on the same field; thus the ravens and other creatures of prey convene around the body of a dead animal; and thus the insect tribes are wont to assemble on the same putrefaction in such amazing swarms, that naturalists have been seduced, by the appearance, into the belief of an equivocal generation, as if these insects were actually produced from the mass of corruption on which they feed.

An opinion of intercourse in the lower ranks of being, is often suggested by a propensity there is in man to confer on every creature a portion of his own nature. Suitable to this propensity, in observing a concourse of animals, however fortuitous, he magnifies every appearance in favour of the social principle, and presumes a concord and government where none in reality subsist. It is the same propensity which gives life to inanimate objects, and leads us so irresistibly, on some occasions, to consider them as active and percipient beings. Withdraw the aid of imagination, and the embellishments of fiction, and much of that intercourse is destroyed which we presume to reign in many departments of the animal world.

Yet, if urgent necessity did not produce a separation, it is probable that the love of herding would be universal. Animals, accordingly, that are solitary in one country are gregarious in another. Even the antipathies among different tribes necessity often creates; for in some regions of the globe, where that necessity does not subsist, animals of prey suspend their hostilities; and tribes, usually accounted the most implacable by nature, fulfil in harmony their peculiar destinations, without encroaching on each other's happiness or security.†

Upon the whole, we may pronounce, that interested intercourse in the animal kingdom is greater in appearance than in reality; that the concourse of a tribe is often accidental; and that all regular economy is under the direction of instinct; and that in all the freer combinations, the society is held together by the tie of affection, or conscious delight, more than by fear or mental wants, or any necessary call of nature.

Such is the constitution of the inferior creation. Is the same analogy observed in man? was he ever in this independent and individual state? or wherein does his pre-eminence consist? Not, surely, in the mechanism of those instincts which direct him to procure subsistence? the senses of other animals are as acute as his.—Not in achievements by bodily strength? for in that particular many of them far surpass him. Not in performing *jointly*, what so many other creatures can perform apart: manifestly, that would be no perfection.—But in this his pre-eminence consists, that being, as they are, in all the corporeal functions, impelled by no necessity but by generous passions, he rises to improvements which flow from the union of his kind.

In some parts of our constitution, it cannot be denied, we resemble the other animals. If, therefore, a time was when those parts chiefly or alone were exercised; our objects and pursuits, and habits of living, must have been nearly similar. I am far from affirming that ever there was no distinction. At all times in our walk there is some nobler aim: there is some inward consciousness, some decisive mark of superiority in every condition of men. But the line which measures that superiority is of very variable extent. Let us allow but equal advantages from

† A celebrated navigator thus describes the condition of animals on a sequestered island, near Statenland, in the South Sea.

"It is amazing to see how the different animals which inhabit this little spot are mutually reconciled. They seem to have entered into a league not to disturb each other's tranquillity. The sea-lions occupy most of the sea-coast; the sea-bears take up their abode in the island; the shags have post in the highest cliffs; the penguins fix their quarters where there is the most easy communication to and from the sea; and the other birds choose more retired places. We have seen all these animals mix together like domestic cattle and poultry in a farm yard, without one attempting to molest the other. Nay, I have often observed the eagles and vultures sitting on the hillocks among the shags, without the latter, either young or old, being disturbed at their presence. It may be asked, how these birds of prey live? I suppose on the carcasses of seals, and birds which die by various causes."—*A Voyage towards the South Pole*, &c., by James Cook, vol. ii. p. 20.

culture to the mind and body; and it is consequential to infer, that savages, in some of the wilder forms, must be as inferior to civilized man in intellectual abilities, and in the peculiar graces of the mind, as they surpass him in the activity of their limbs, in the command of their bodies, and in the exertion of all the meaner functions. Some striking instances of savage tribes, with so limited an understanding as is scarcely capable of forming any arrangement for futurity, are produced by an historian, who traces the progress of human reason through various stages of improvement, and unites truth with eloquence in his descriptions of mankind.

(To be continued.)

MIRROR OF THE MONTH.—DECEMBER.

"Last of the months, severest of them all,
Woe to the regions where thy terrors fall!
For lo! the fiery horses of the Sun
Through the twelve signs their rapid course have run;
Time, like a serpent, bites his forked tail,
And Winter, on a Goat, bestrides the gale;
Rough blows the north-wind near Arcturus' star,
And sweeps unrein'd across the polar bar,
On the world's confines where the sea-bears prowl,
And Greenland whales, like moving islands, roll:
There, on a sledge, the rein-deer drives the swain
To meet his mistress on the frost-bound plain.
Have mercy, Winter! for we own thy power,
Thy flooding deluge, and thy drenching shower;
Yes—we acknowledge what thy prowess can,
But O! have pity on the toil of man!"—*Poet. Calend.*

OUR Saxon ancestors gave December the appellation of *winter-monat*, or *winter-month*; but after they were converted to Christianity, in devotion to the birth-time of our Saviour, they called it *heligh-monat*, or *holy-month*. An author, whose vivid sketches of nature are only rivalled by his enthusiasm for natural objects, and his classical taste, thus describes the last month of the year: "The vapourish and cloudy atmosphere wraps us about with dimness and chillness; the reptiles, and other creatures that sleep or hide during the cold weather, have all retired to their winter quarters; the farmer does little or nothing out of doors; the fields are too damp and miry to pass, except in sudden frosts, which begin to occur at the end of the month; and the trees look but like skeletons of what they were—

'Bare ruin'd choirs, in which the sweet birds sang.'—SHAKESPEARE.

The evergreen trees, with their beautiful cones, such as firs and pines, are now particularly observed and valued. In the warmer countries, where shade is more desirable, their worth and beauty are more regularly appreciated. Virgil talks of the pine as being handsomest in gardens; and it is a great favourite with Theocritus, especially for the fine sound of the air under its kind of vaulted roof.

"But we have flowers as well as leaves in winter time; beside a few of last month, there are the aconite and hellebore, two names of very different celebrity; and, in addition to some other flowering shrubs, there is the Glastonbury thorn, which puts forth its beauty at Christmas. It is so called, we believe, because the abbots of the famous monastery at that place first had it in their garden from abroad, and turned its seasonable efflorescence into a miracle."

Another, who writes no less eloquently, thus speaks of December:—"The beautiful spring is almost forgotten in the anticipation of that which is to come: the bright summer is no more thought of than is the glow of the morning sunshine at nightfall. The rich autumn only just lingers on the memory, as the last red rays of its evenings do when they have but just quitted the eye; and winter is once more closing its cloud-canopy over all things, and breathing forth that sleep-compelling breath which is to wrap all in a temporary oblivion, no less essential to their healthful exis-

tence, than is the active vitality which if for a while supersedes." But is there nothing to cheer the heart and delight the eye? Does nature, at this seemingly dormant period, actually suspend her operations? Look around. The furze flings out its bright yellow flowers upon the otherwise barren heath; and though the fierce whistling of the wind may be heard in every cranny of our dwelling, are there no happy hearts and merry faces within? Yes, indeed, there is a feeling of comfort depicted in the countenances of those who, at such a time, have a good roof over their heads, and a warm and comfortable hearth to sit by. And there is the festive holiday, the season of good cheer and merriment; not, perhaps, kept with the same joyous intensity that was known to our ancestors, but still kept and still reverted to as a time especially devoted to social intercourse and hilarity. How our ancestors were wont to keep it, may be learned from the following stanzas, which celebrate one of King Arthur's Christmas entertainments. As a poet's license may have been somewhat indulged, we are not prepared to vouch for its entire accuracy; but, looking at the bills of fare which have come down to our times, in sundry local histories, we believe it may be taken as no very exaggerated picture.

"The bill of fare (as you may well suppose)
Was suited to those plentiful old times,
Before our modern luxuries arose,
With truffles, and ragouts, and various crimes;
And, therefore, from the original in prose,
I shall arrange the catalogue in rhymes.
They served up salmon, venison, and wild boars,
By hundreds, and by dozens, and by scores:

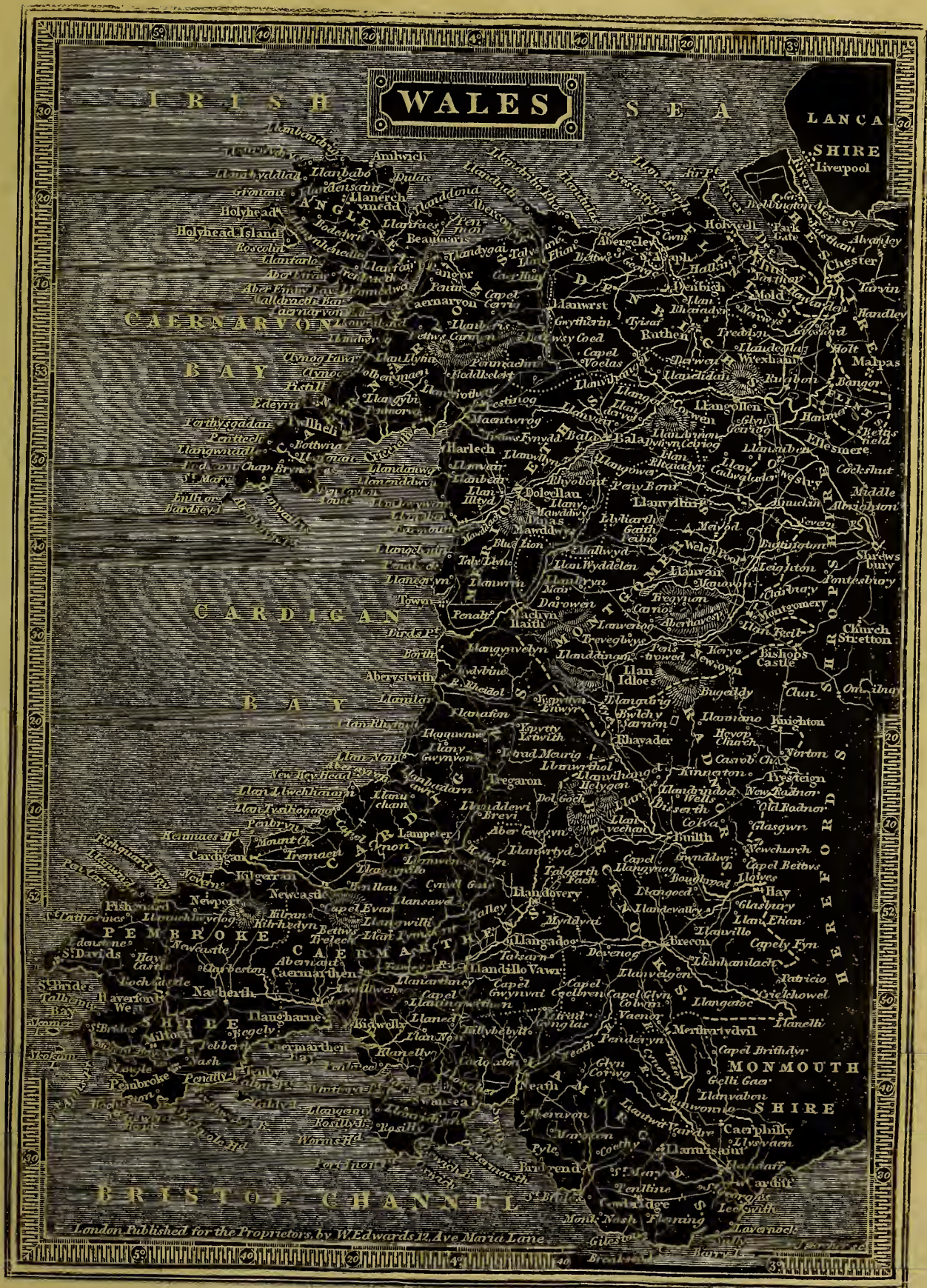
"Hogsheads of honey, kilderkins of mustard,
Muttons, and fatted beeves, and bacon swine;
Herons, and bitterns, peacocks, swan, and bustard,
Teal, mallard, pigeons, widgeons, and, in fine,
Plum-puddings, pancakes, apple-pies, and custard;
And here withal, they drank good Gascon wine,
With mead, and ale, and cider of our own,
For porter, punch, and negus, were not known.

"All sorts of people there were seen together,
All sorts of characters, all sorts of dresses;
The fool, with fox's tail and peacock's feather,
Pilgrims, and penitents, and grave burghesses;
The country people with their coats of leather,
Vintners and victuallers, with cans and nesses;
Grooms, archers, varlets, falconers, and yeomen,
Damsels, and waiting-maids, and waiting-women."

HISTORICAL & BIOGRAPHICAL MEMORANDA FOR DECEMBER.

December 1st, in 1648, the unfortunate Charles I. was confined in Hurst Castle, by virtue of an order of the council of officers in the army; and there he remained till the 21st instant, when, under the orders of Colonel Harrison, he was conducted from Hurst Castle to Windsor, where he arrived on the 23d, being the last removal of the ill-fated monarch prior to his arraignment, condemnation, and public death on the scaffold.

On this day, in 1521, died the celebrated Pope Leo X. whose life has been celebrated by the pen of Mr. Roscoe. This member of the house of Medici, had not only a taste for letters himself, but was the munificent and liberal patron of men of learning and genius, particularly poets. Leo formed two great projects, the one to effect a general association of the Christian powers against the Turks, and the other to complete the church of St. Peter. It was in aid of these schemes that he issued plenary indulgences, by which the purchasers procured the pardon of their sins. These indulgences being carried into Germany, occasioned the secession from the church of Rome which Luther commenced, and, rapidly spreading, soon produced the Reformation.



W A L E S.

THE principality of WALES is situated in the south-west part of Britain, and is that portion of our native land to which the ancient Britons retired from the persecutions of the Saxons; for notwithstanding the latter made themselves masters of all England, they never subdued Wales, nor got possession of more than the counties of Monmouth and Hereford, which formerly belonged to Wales, and were then inhabited by three different tribes of the Britons, viz. the Silures, the Dimetæ, and the Ordovices. It contains twelve counties, which are thus classed:—Flintshire, Denbighshire, Carnarvonshire, Isle of Anglesea, Merionethshire, and Montgomeryshire, forming NORTH WALES: and Radnorshire, Cardiganshire, Pembrokeshire, Carmarthenshire, Brecknockshire, and Glamorganshire, forming SOUTH WALES.

The general aspect of the principality is bold and romantic, consisting of almost continued ranges of lofty mountains and impending crags, intersected by numerous deep ravines, with extensive valleys. The principal range in North Wales is that of which the lofty Snowdon occupies the centre. In South Wales the mountains are not so considerable, yet they are far from being deficient in elevation or picturesque grandeur; and when contrasted with the fertile vales, and the numerous lakes which lie scattered over the country, the beauty of the scenery is strikingly conspicuous. The whole country abounds with game, and fish is also plentiful; numbers of goats are found wild among the mountains; the cattle in general are small, but their flesh excellent; and provisions are much cheaper than in England.

For noble rivers and their tributary streams, Wales is particularly distinguished; the principal are the Severn, the Dee, the Wye, the Uske, Conway, Clwyd, and Tivy. Most of these are valuable for their fisheries; and aided by numerous canals, they are of the first importance to the commercial prosperity of the country. Wales is also rich in mineral productions; silver, lead, iron, quartz, copper, spar, coals, &c., being found in many parts; and the iron-works in particular are a source of great employment to the population, and of wealth to the proprietors.

The remote genealogy of a Welshman has long been proverbial; and the antiquity of their country is the pride and boast of many an honest Cambrian. We shall, however, go no farther back than A.D. 870, when Roderic, king of Wales, divided it among his three sons. The country derived the name of Wales, and the inhabitants that of Welsh from the Saxons, who by those terms denote a country and people to which they are strangers; for the Welsh in their own language call their country Cymry, and their language Cymraeg. They continued under their own princes and laws from the time of Roderic, and were never entirely subjected to the crown of England till the reign of Edward I., when Llewellyn ap Gryffith, prince of Wales, lost both his life and his dominions. Edward, the better to secure his conquest, and to reconcile the Welsh to a foreign yoke, sent his queen to lie in at Carnarvon, where she was delivered of a prince; to whom the Welsh on that account the more readily submitted. On this occasion Edward used a very pardonable

piece of policy. Calling together the Welsh nobles, he took their oath that they would choose a prince of his recommending, provided the said prince was a native, and could not speak the English language. From that time the eldest sons of the kings of England have commonly been created princes of Wales, and, as such, enjoy certain revenues from that country.

After the conquest of Wales by Edward I. very material alterations were made in their laws, to bring them nearer to the English standard, especially in the forms of their judicial proceedings; but they still retain portions of their original polity, particularly that which relates to inheritance, viz. that their lands are divided equally among all the sons, instead of descending to the eldest son alone, as in England. In the reign of Henry VIII. whatever remained to render them an independent people was annulled; but at the same time the utmost advancement was given to their civil prosperity, by admitting them to a thorough participation of the laws and rights of Englishmen. Thus were this brave people gradually conquered, as it were, into the enjoyment of true liberty, and insensibly put upon the same footing as fellow-citizens with those to whom they had long been in the habit of looking as conquerors and oppressors.

With regard to the general character of the Welsh, they must be regarded as a brave people; jealous of affronts, passionate, and quick of resentment, yet easily reconciled. The greater part of the common people speak only their native language, which is the ancient British; differing entirely from the English, and having but very little affinity with any of the western tongues, except the Gaelic, Erse, or Irish. It is said to be a dialect of the ancient Celtic, and in many respects to resemble the Hebrew.

The commerce of Wales arises from its numerous manufactories of flannels, webs, stockings, wigs, gloves, sacks, cottons, and cotton-twist; but principally from its extensive establishments of copper, iron, tin-plates, and lead-works. It contains a great number of roadsteads and harbours, some of which are extremely commodious; and various parts of the coast are resorted to by those who wish to combine the advantages of a marine residence with comfort and frugality.

Wales is bounded on all sides by the Severn, except on the east, where it joins the counties of Chester, Salop, Hereford, and Monmouth. Its length, from the south part of Glamorganshire to the extremity of Flintshire, north, is about 112 miles; and its greatest breadth, from the Wey, east, to St. David's in Pembrokeshire, west, is about 90 miles. It is, *ecclesiastically*, in the province of York; and is divided into the dioceses of St. David's, Bangor, Llandaff, and St. Asaph. *Legally*, it is divided into four circuits, viz. the Chester, the Northern, the South-eastern, and the South-western circuits; and it contains 751 parishes, and 58 market-towns.

The fear of punishment may be necessary to the suppression of vice; but it also suspends the finer motives to virtue.—*Anon.*

IRELAND.

(Continued from page 443.)

IRISH HISTORY. — The early history of Ireland may certainly be said to be involved in mystery and fable; but is not the early history of Greece a tissue of absurdities, and that of Rome a series of agreeable fables, more fitted for the inquisitive ear of infancy than for the belief of manhood? Ireland still boasts the possession of her bardic records, the psalters of her great religious institutions, the traditions of her children, and her enduring monuments of stone; all which exhibit to the eye living testimony of her ancient learning, sanctity, and civilization: but we shall not attempt to reconcile the various conflicting accounts that have been handed down in the legendary lore of the island; nor attempt either to prove or disprove, that Magog, the son of Japhet, and grandson of Noah, was their original progenitor.

We certainly have reason for attributing the colonization of Ireland to the Phœnicians, or if not to the Phœnicians, to the Carthaginians, though we incline to the former. It is true, the old Irish language is very similar to the Carthaginian, as is plain from the well-known passages in the *Himilco* of Plautus; but Carthage herself was but a daughter of Phœnicia. It has, therefore, with much probability, been concluded, that the existing relics of eastern antiquity in Ireland are, though resembling the Carthaginian, wholly of Phœnician origin; for instance, the brazen swords found in the Irish bogs, which are precisely similar to the swords of the Carthaginians found in the field of Cannæ, and now preserved in the British Museum. The letters, language, and customs of the ancient Irish, were doubtless Phœnician, as may be seen by examining ancient Irish manuscripts; and, indeed, the identity of the languages has been established for us by Plautus. But how is it possible to arrive, with any degree of certainty, at facts which are enveloped in the mist of ages? or to reconcile opinions diametrically opposite, without the aid of authentic historical records, respecting the state of a country which pretends to civilization and regular government two thousand years before the christian era? Let us, therefore, leave the boasted "Chronicles" of Ireland, and its Phœnician settlers, its subsequent race of Fírbolgs, its Milesian kings, and all the traditionary lore of its Druidical bards, and speak of the manners and customs of the inhabitants during the time that Britain was a Roman colony; and it is here worthy of observation, that Ireland at that period was involved in such extreme barbarism, that it never excited the attention of the Romans, although they held the dominion of Britain for four hundred and seventy-six years.

The form of government was a number of provincial kings, of whom one assumed, for a time, the title of monarch, exacting from the rest a kind of homage, military service, and tribute. Each of these kings had, subordinate to him, a variety of petty kings or princes, of whom he demanded tribute, assistance, and submission, similar to what he paid the sovereign. These petty kings had also other chieftains, or heads of inferior clans, subordinate to them, over whom they assumed the same rule. The succession to the monarchy was elective, but confined to the family of Milesius, the imaginary hero of the bards, whose names are recorded to be Hebor, Heremon, and Amergin; but great was the inconvenience attending this elective monarchy, and dreadful were the contests be-

tween the partisans and followers of rival princes; for we read, that out of two hundred monarchs, a hundred and seventy died by premature and violent deaths. In short, the title of each was usually the murder of the one who preceded him.

In such an unsettled state of government, laws, we may well suppose, had but a feeble operation. Their laws, however, such as they were, seem not to have been committed to writing, but were transmitted through successive generations, by a kind of hereditary judges, called Brehons, who gave their decisions in the open air.

The habitations, both of princes and people, were cabins made of hurdles, and plastered with clay. Each clan had their dwellings together, and in the middle was the residence of the chief, situated on a rising ground, and surrounded with a trench. These fortified enclosures were termed *raths*, and were of different dimensions, according to the dignity of the chieftain. Here the whole clan used, in cases of emergency, to shelter themselves from danger. They were also adapted for the accommodation of travellers; and the Brehon laws required that they should not be too suddenly removed, lest these should be disappointed of their usual entertainment. It was also a custom for different families to exchange children, which was called *fosterage*, and produced such an intimate connexion among the persons thus bred up together, that they considered themselves bound to support each other in every quarrel. In such a state of society, it is not surprising that acts of violence, accompanied by horrible instances of treachery and perjury, though softened now and then by generous deeds, were frequent among them; and the bards and musicians, who had great influence over the people, more often excited than alleviated their vindictive passions, by their songs and national music.

Their chief food was milk, herbs, flesh of cattle, and particularly of wild swine, that abounded in the forests of oaks. The little corn they had, instead of being thrashed, was freed from the husk by fire, then pounded and boiled, or ground with a hand-mill, and baked in cakes, which were hardened on the embers. Their principal beverage was mead, which caused the preservation of bees to be particularly regarded by the Brehon laws.

As the knowledge we have of events during even this period, is chiefly taken from poems and romances, which, though founded in reality, would afford, when embellished by the fictions of the bards, very imperfect materials for history, we shall only notice certain reigns, or transactions remarkable for their effects, or as leading to some conspicuous change in the government or in the habits of the people.

The first great event worthy of relating was the conversion of the Irish to Christianity. The honour of this conversion is usually ascribed to St. Patrick, who is reported to have been a native of North Britain, and to have entertained a partiality for the Irish, from the circumstance of his being a captive in Ireland in his youth. It is said he arrived on his spiritual mission, with authority from Pope Celestine, about the year 432, when he was in his sixtieth year. Whether or not it was the work of St. Patrick, (his very existence being denied by some modern writers) it is needless to inquire; but by whomsoever this useful work was effected, great policy was displayed in endeavouring to make it agreeable to the Druids. As certain hereditary privileges and possessions were annexed to that order, it was appointed, in conformity to this idea, that the office of pastors of the several

churches should be confined to certain families, and that the lands set apart for their support should descend by regular inheritance. Still the work of conversion for a long time proceeded slowly. During the two succeeding centuries, Christianity and learning made a successful progress in Ireland. This was owing to the clergy of England, who took refuge here from the Anglo-Saxon pagans, the sanguinary conquerors of their country; and monasteries and seminaries of learning had so much increased in Ireland in the seventh century, as to cause it to be called the island of saints and scholars. Missionaries were then sent from it to different parts of the continent to propagate the christian religion and scholastic philosophy, the fashionable learning of the times. Literature, however, was entirely confined to the monasteries, which, by their institution, being detached from society, had but little influence on the great body of the people, who were involved in extreme barbarism. Yet, furious and savage as they were, those asylums of piety were respected by them in their most bloody intestine commotions.

It was at this period, from the sixth to the ninth century, that several eminently learned and pious men flourished in Ireland. The first of these was Columba, who established a celebrated abbey in the Isle of Ilay, one of the Hebrides, which, for almost two hundred years, disseminated christian knowledge and literature through Scotland and the north of England: hence he was honoured with the title of the apostle of the North Britons. After him came the pious Columbanus, the monk of Bangor, who composed several celebrated works. The next century produced Virgilius Solivagus, the glory of Irish literature, whose fame attracted the notice of Pepin, king of the Franks, who conferred on him the bishopric of Saltzburg. He was degraded by Pope Zachary, for daring to publish the discovery he had made of the real figure of the earth, the fruits of laborious research, but was canonized five hundred years after by Pope Gregory IX.

From the year 795, when the Danes, or Ostmen, first invaded Ireland, till the end of the tenth century, the country was continually harassed and despoiled by these merciless warriors. Though several Irish princes and chieftains, no doubt, exerted themselves in repelling those foreign invaders, yet the exploits of none deserve so much notice as those of Brian Beromy, the hero so much celebrated in the annals of his country. He restored to their possessions those who had been ejected by foreigners, set those at liberty who had been reduced to bondage, and greatly conciliated all parties by the equity of his administration. The havoc wrought by invasion was now greatly repaired, the endowments of the clergy recovered, churches and religious houses rebuilt, learned seminaries re-established, and the laws strictly enforced. To render the glory of his reign complete, he was preparing to fit out a formidable navy in order to overturn future invaders, when the Danes, who were still left in possession of the maritime cities, invited their countrymen to their assistance. These were joined by some of the Irish, and Brian was obliged to take the field against this united force, at the age of eighty-eight. A desperate conflict ensued, the old king's troops were victorious, but both he and his son were slain. This was the famous battle of Clontarf, which took place on the 23d of April, 1014.

We now pass on to the period of the first invasion of Ireland by the English.

At this time there were five sovereignties in Ireland, those of Munster, Leinster, Meath, Ulster, and Connaught; the Irish were fully converted to Christianity, but had never recognized the authority of the see of Rome. In the year 1156, therefore, Adrian granted a bull to Henry II., for the total subjugation of Ireland, and a reduction of the authority of the Romish Church, imposing an obligation of one penny per house for the support of that see; but continental negotiations occupied Henry so much that this bull was neglected, and he awaited a more favourable moment for bringing the Irish under the dominion of England.

Dermot Macmorrough, king of Leinster, a licentious tyrant, had conceived an unlawful passion for the wife of O'Ruarc, king of Breffney (now Leitrim); and taking advantage of his absence, invaded his palace, and carried his queen away. The infamous outrage called the latent dislike of the people into action, and the tyrant was driven from his kingdom. Thus exiled, he applied for aid to Henry II., promising, if he recovered the sovereignty, to hold his kingdom in vassalage to the English crown. Henry being at that time at Guienne, in Normandy, granted him letters patent, empowering all his subjects to aid the Irish king in the recovery of his dominions, and recommending him to several of his barons, particularly to Strongbow, earl of Pembroke, with whom he formed a treaty, the conditions of which were, that Strongbow should espouse Eva, Dermot's daughter, and be declared heir to all his dominions. He also engaged Fitzstephen, constable of Aberdovey, and Maurice Fitzgerald of Wales, in his cause. Fitzstephen was the first who landed in Ireland, with 300 men, to whom Fitzgerald, with 100, soon succeeded; after them came earl Strongbow and his retainers. With this auxiliary force, Dermot was enabled to regain his throne; and at his death, Strongbow, who had married Eva, succeeded to the crown of Leinster. Henry, who had been a silent observer of Strongbow's successes, now thought it full time to demand his submission; and accordingly, landing in Ireland, with 500 knights, he received the homage of his new subjects, bestowed some lands on the English adventurers, and appointed Strongbow seneschal of Ireland. By these mere ceremonies, important in their consequences, was Ireland annexed to the British crown; but Strongbow had much to encounter in his new government from the machinations of his enemies at court, and the harassing opposition of Roderic, king of Connaught, who, however, was at length totally defeated.

(To be continued.)

THE FIVE SENSES.

(Continued from page 445.)

III.—THE SENSE OF SMELLING.

SMELLING is more simple and limited in its offices than any of the other senses, and contributes more to the luxury of life than any thing which might be regarded as directly necessary to its existence. It may be briefly defined as that faculty by which the mind is enabled to perceive the *effluvia* of bodies, and by it to infer their presence, or judge of their peculiar qualities. In the larger animals, its power would seem to be proportioned to the strength or weakness of the sight, modified, also by the peculiar wants of the animal. Thus, in the bat tribe, whose sight is weak, the organs of smell are developed in an extraordinary degree. The mole, also, which is nearly blind, has very strong powers of smell.

To this it might be objected, that the family of hounds and "wild beasts" in general, both smell and see with equal degrees of strength; but we answer, that although their visual powers may be strong, the perfect scent which they possess is necessary, because their prey is, in almost all cases, either hidden, or beyond the range of sight. Smelling may therefore be regarded as a sort of handmaid to sight; and in the case of man, it gives a finish and beauty to his visual perceptions, which those who have inhaled the fragrance of a clover-field, when

"Vernal showers awake a rich perfume,"

will be very ready to acknowledge.

We have said that smelling is the perception of the effluvia of bodies by the mind. Let us now consider the subject more minutely, and in the following order:—
1. the objects of smell; 2. the organs of smell; and
3. the mode in which smelling is performed.

1. THE OBJECTS OF SMELL.

As far as human research has proceeded, it would appear that *all* substances, whether of a solid, fluid, or aerial form, are composed of particles of matter, in different degrees of cohesion; and that these particles admit of division again and again, till all known powers of separation are at an end, and thought perishes in the attempt to follow them to the threshold of infinite littleness. A few examples will make this plain:—

One thousandth part of a grain of tallow, burnt in the flame of a candle for *one moment*, would illuminate a circle of four miles diameter, so as to be distinctly visible to persons placed in every part of it.

Let the tropical seas cast a putrid body upon the shore, and in a few minutes a company of vultures will emerge from the distant horizon, and, spanning the heavens straight as an arrow flies, fall directly upon it.

Drop a grain of carmine into a gallon of water, and every portion of it will be visibly tinged with the colour.

In all these cases, matter has been infinitely divided, and it is to such a division of the constituent atoms of bodies the production of the effluvia we have mentioned is to be traced. We shall, however, quote a few more examples:—

Voyagers can mostly *smell*, at the distance of hundreds of miles, the coasts they are approaching.

Negroes are said to be capable of distinguishing the track of an European by the *scent* of his footsteps.

A grain of musk will perfume a chamber for twenty years, without losing, in a sensible degree, any of its weight.

And flowers, "coloured for the sight, perfumed to *please* the smell," are commonly distinguishable amid a thousand others, by the odours they emit. These,

— "Glowing 'mid the purple morn,
Add fragrance to the new-born day,"

and constitute the most striking, as well as the most pleasing, objects of the sense of smell.

Now, in all these instances, we perceive that the cause of the sense, or that which excites it, is a subtle effluvia, or cloud of atoms, parted from the perfuming objects, and carried through the air. And thus, when the

"Lavish stock, that scents the garden round,"

pours upon our senses, redolent of sweets, bright thoughts of innocence and purity, let us not be contented with merely reasoning upon the effect; but let us, wafted on the "breath of nature," reach after the great cause,—the

glorious God who designed them for our enjoyment, and who himself taketh pleasure in the sweet incense of Israel.

2. THE ORGANS OF SMELL.

The organs of smell are situated in certain intricate passages and chambers, to which the nose forms the external entrance. The external nose is composed of bone, cartilage, and the common integuments. The bones are two, of an oblong shape, and are situated between the eyes and the cheek bones. They are called the *ossa nasi*, and form a sort of bridge, which, by its solidity, protects the tender structures beneath, and, by its projection, assists very materially in catching the rising odours. Internally, the passage which these bones form is divided into two, by a thin bony partition, called the *septum narium*. From these bones several cartilages are suspended, to form the flexible end of the nose. Thus we have two openings for the admission of scents, and in the way in which this is accomplished there is much to admire. Had the *ossa nasi* been continued, and the end of the nose formed of bone instead of cartilage, we could have scarcely lived a month without breaking it; and the *comforts* of a "pocket-handkerchief" would have remained wholly unknown. We should also have been without the power of regulating the size of the nostrils to the circumstances in which we might be placed; but as it is, we can dilate, or partially close them, according to the rate we breathe, or the sweetness or not of the odours by which we are surrounded.

The nostrils enlarge as they proceed inwards, and lead into many curious cavities and winding passages, formed by what are called the *turbinated* bones, and those of the face and base of the skull. After many convolutions, these passages finally emerge into a larger opening over the top of the throat, and communicate with the mouth. This arrangement enables us to breathe through the nose, which is the most natural mode of performing that function. Breathing through the mouth is almost peculiar to man.

The surfaces of this miniature labyrinth of bones are closely covered by a membrane, called the *membrana schneideriana*, or the mucous or pituitary membrane. This membrane is the immediate seat of the sense of smelling; it is of a thickish spongy structure, very red, and carries in great abundance the filaments of the OLFACTORY NERVE, whose larger branches enter the inner nose through a number of holes made for them in the *æthmoid* bone. It is covered with a vast number of minute glands, from which a mucous secretion is constantly and copiously discharged.

3. THE MODE IN WHICH SMELLING IS PERFORMED.

The air, loaded with the effluvia of bodies, is carried by the act of breathing through the nostrils, into the passages of the internal nose, where the odorous particles are entangled, and, adhering to the mucus on the surface of the pituitary membrane, are dissolved, and coming into contact with the nervous tissue, the mind is immediately impressed with a sense of their presence, or, in common language, smells them.

Thus far may we go, but no farther; for how the nerves convey this intelligence, and by what means the brain is enabled to receive it, are secrets, which, as they are known to God only, may justly be expected to humble our pride, and exalt our adoration.

In closing our remarks upon this sense, we may point to the design exhibited in so *cautiously* placing the organs of smell in the great avenue of breath, as a guard to the lungs; and also in placing the apertures of the nostrils *perpendicularly* over the mouth, as a protection to the stomach. By these means bad air and improper food are detected and avoided, and the most important functions of life,—eating and breathing,—are discharged with a confidence in which suspicion rarely mingles.

(*The Senses of Taste and Touch in our next.*)

SIDNEY, NEW SOUTH WALES.

So rapid are the improvements that are taking place in this important colony, that a description, which may be correct when first put on board a ship to be conveyed to England, may be deficient in many particulars ere it arrives at its destination. Buildings may have been erected, farms laid out, colonies planted, and a thousand alterations made during the interval.

The continent, or island, of New Holland, which bids fair to become a vast civilized state, or perhaps a number of civilized states, in the Southern Pacific Ocean, was discovered by some Dutch navigators, and received its name from them; but they made no settlement on it.

Our illustrious countryman, Captain Cook, was the first who visited the eastern coast, and soon after it was taken possession of by the British, under the name of New South Wales. At that time little was done to explore the country, and no very encouraging prospects presented themselves where it was examined. The soil appeared rather barren than fertile; no rivers of any consequence were seen; only two species of timber trees were found; and no quadrupeds but kangaroos and opossums inhabited the region then visited. At one place great numbers of unknown plants were met with, which occasioned it to be named "*Botany Bay*."

The loss of our colonies in America having rendered it necessary to establish a new settlement, to which criminals might be transported, this island was fixed on for the purpose. Mr. Philips was appointed its governor, and sailed with the *Livius* frigate, the *Suppy*, armed Tender, three store ships, with provisions for two years, and six transports, on board of which were 778 convicts, and a body of marines.

This expedition arrived at Botany Bay, Jan. 3, 1778; but the country being found unpromising for a settlement, and the bay insecure for shipping, and too shallow for large vessels, it was determined to remove to Port Jackson, and to lay the foundation of a town near a harbour, called *Sidney Cove*, where quays might be constructed for loading and unloading the largest vessels.

Every exertion was now made to clear ground for an encampment, erect a temporary building, which had been brought from England, for the governor's residence, and store houses for the provisions, tools, agricultural instruments, &c. A regular government was likewise established in the colony on the 7th of February, with all the solemnity that circumstances would allow.

Great difficulties were, however, experienced, from the misconduct of the colonists, and the precariousness of the supply of provisions, which sometimes threatened absolute famine.

The wretched convicts, blind to their own interests, and

many of them sunk in the lowest depths of vice, gave great trouble to the government, and rendered severe examples necessary. Many were accordingly executed, and others, escaping into the woods, were either murdered by the natives, or perished with hunger. Those who were rather more regular in their conduct were indolent, and disinclined to exertion.

Time, and the judicious regulations of those in authority, at length succeeded in putting things into a better train; and agriculture, having removed the danger of want, the colonists began to turn their attention to the enlargement of their stock, and improving the breed of their domestic cattle.

The town of Sidney, the capital of the settlement, has rapidly grown into extent and importance. Its houses are, for the most part, built of stone or brick, and its principal street, called George-street, is a mile and a half long. It has many respectable public buildings, erected under the administration of Governor Macquarie. Theatrical amusements, the luxury of a newspaper, the convenience of a stage coach from Sidney to Saramatta, and many other refinements of civilized life, now render the situation of the settlers more comfortable than formerly, and remind them of the enjoyments of their native country.

Many respectable persons, with moderate capitals, now find it convenient to emigrate to New South Wales, and also to the new settlement at Van Dieman's Land, as they are no longer liable to those privations which discouraged the hopes of the first settlers. Agriculture has greatly flourished, and considerable quantities of fine wool, the produce of the flocks of New South Wales, have been exported to England, where it has met a very ready sale.

GLASS.

PLINY gives the following account of the discovery of the art of making glass:—

"Some merchants conveying nitre, stopped to refresh themselves near a river which issues from Mount Carmel. Being unable to find stones upon which to rest their kettles, they made use of some pieces of nitre for that purpose; the fire gradually melted the nitre, which mingled with the sand; this mixture produced a transparent matter, which was no other than glass."

By some it is said that glass was invented in England by a monk, named Benalt, in the year 894; and that it was used in private houses in 1180. Lord Kames is of opinion that the art of making glass was imported from France into England in the year 674, for the use of monasteries; and, that glass windows in private houses were very uncommon even in the twelfth century.

The manners of a people are not to be found in the schools of learning, or the palaces of greatness, where the national character is obscured or obliterated by travel or instruction, by philosophy or vanity; nor is public happiness to be estimated by the assemblies of the gay, or the banquets of the rich. The great mass of nations is neither rich nor gay: they whose aggregate constitutes the people, are found in the streets and villages, in the shops and farms; and from them, collectively considered, must the measure of general prosperity be taken.—*Johnson's Tour.*

FLOATING ISLAND ON RESWICK LAKE.

THE Floating Island, that most extraordinary phenomenon on Reswick Lake, which attracts the curious and puzzles the most profound philosophers, has again vanished. About a month ago this curiosity emerged from the lake, and continued to show its solid form until the afternoon of Saturday fortnight, when it again sank into the water.—*Cumberland Packet*.

It is not the quantity of meat, but the cheerfulness of the guests, which makes the feast; it was only at the feast of the Centaurs, where they ate with one hand, and had their drawn swords in the other; where there is no peace, there can be no feast.—*Clarendon*.

The temperate man, like fish in crystal streams, untainted with disease, smoothly glides through the soft current of life.—*Feltham*.

The world is but one great family. What then is this narrow selfishness in us, but relationship remembered against relationship forgot?—*Clarissa Harlowe*.

HISTORICAL & BIOGRAPHICAL MEMORANDA FOR DECEMBER.

December 22d, in 1744, was born *T. Holcroft*, a dramatist, novelist, and miscellaneous writer. The place of his nativity was in the neighbourhood of Leicester-square, where his father carried on the business of a shoemaker, which his son was brought up to, but relinquished early in life to try his fortune on the stage. In this attempt he failed, but was more successful as a dramatic writer; some of his pieces, particularly the comedy of the "Road to Ruin," having been extremely popular. At the breaking out of the French Revolution, he showed the same kind of indiscreet zeal for that liberty which he did not understand, as many others did, and he was included in the famous prosecution for treason instituted against Hardy, Horne Tooke, Thelwall, and others, in 1794; but the parties above-mentioned being acquitted, Holcroft was not brought to trial. He is considered as the first introducer of melo-dramas on the English stage; he possessed strong natural abilities, and his literary attainments were very considerable. He died in 1809.

December 24th.—We this day record the birth of the celebrated Bishop Warburton. This prelate of the English church was the son of an attorney at Newark-upon-Trent, where he was born. Though bred to the profession, and even practising it, he evinced a deep-rooted aversion to the law, and adventured on the world of literature as coadjutor with Theobald, who was at that time engaged on an edition of Shakspeare. In 1727 he began to distinguish himself as an original writer; and having dedicated a work to Sir Robert Sutton, the baronet's interest obtained for him academical honours at Cambridge, and he was afterwards, by his patron, presented to the rectory of Brand Broughton, in Lincolnshire. The path to clerical advancement being thus open to him, and his literary attainments becoming eminently conspicuous, he was promoted, step by step, till he reached the mitre, as bishop of Gloucester, where he died, in 1779.—Dr. Johnson, in his *Life of Pope*, thus speaks of Warburton:—"He was a man of vigorous faculties, a mind fervid and vehement, supplied, by incessant and unlimited inquiry, with wonderful extent and variety of knowledge; but his knowledge was too multifarious to be always exact, and his pursuits were too eager to be always cautious." He was a most uncompromising opponent of dissenters of every denomination; as such he was lauded by his high-church friends, and decried by all who differed from them.

December 25th.—CHRISTMAS-DAY. On the anniversary of this solemn festival, A.D. 1642, was born, at the manor-house of Woolstroppe, in Lincolnshire, that great master of astronomical science and profound philosopher, *Sir Isaac Newton*. To speak of his

erudite works and vast attainments as they deserve, would require many pages; and in a brief notice like this it would be a positive injustice to his memory. But we may say, with the poet,—

"Nature and Nature's laws lay hid in night,—
God said 'Let Newton be!' and all was light!"

December 27th.—This day also is worthy of note as the anniversary of the birth of a great astronomer, namely, *John Kepler*, who was born in 1571, at Wied, in the duchy of Wirtemberg. Though Kepler's genius was inferior to that of our immortal countryman just noticed, he attained great eminence in his profession, and was the friend and coadjutor of Tycho Brahe. To him we owe the discovery of the true figure of the orbits of the planets, which he demonstrated to be ellipses; and he further showed that the planets described areas proportioned to their periodic times of revolution; and that the squares of their periodic times are proportioned to the cubes of their mean distances. He died at Ratisbon, in 1630.

December 28th.—*Westminster Abbey dedicated*.—The Abbey Church of St. Peter's, Westminster, having been rebuilt by Edward the Confessor, the dedication of that structure was performed on this day, A.D. 1065; and it is said that the charter and privileges granted on that occasion, was the first to which the great seal of England was attached. This building was subsequently demolished by Henry III.; after which the noble fabric, as it now stands, was erected.

December 31st.—It is singular that in our biographical *Memo-randa* for this week, three eminent astronomers are to be found. This last day of the year is the anniversary of the death, in 1719, of the celebrated *John Flamsteed*, the first astronomer-royal, and from whom the Observatory at Greenwich derives its popular name of "Flamsteed House."

Flamsteed was born at Denby, near Derby, August 19, 1646; and his love for the science of astronomy was discoverable at a very early age, having, according to a diary which he left behind him, calculated eclipses, &c. when in his teens. On the 10th of August, 1675, the foundation-stone of the Royal Observatory, for watching and noting the motions of the celestial bodies, was laid on the hill, where it now stands, in Greenwich Park. The edifice was erected by order of King Charles II. at the instance of Sir Jonas Moor, under the direction of Sir Christopher Wren. Here it was that Flamsteed constructed his "Scheme of the Heavens," at the very moment of time that the foundation-stone was laid. This is still to be seen there in a manuscript vellum-bound folio; and opposite to it, also drawn by himself with great exactness, and signed by his own name, is a ground plan of the Observatory.—Flamsteed had the reputation of being an astrologer as well as an astronomer; but the grounds for such a belief are not by any means well supported. That he was eminently skilful and scientific is certain, though he never reached that enviable height which his cotemporary Sir Isaac Newton attained. If, however, we are to give implicit credit to a series of notices, or memoranda, contained in a folio volume of MS. "Observations," which, like his "Scheme of the Heavens," &c. is preserved at the Observatory, we must admit that Sir Isaac was indebted to him for many valuable hints, and much solid information. Indeed, it would seem that the knight was mean enough to make use of Flamsteed's labours, but had not the generosity to acknowledge it. To show the feeling of the latter on the subject, we here subjoin the following extract:—

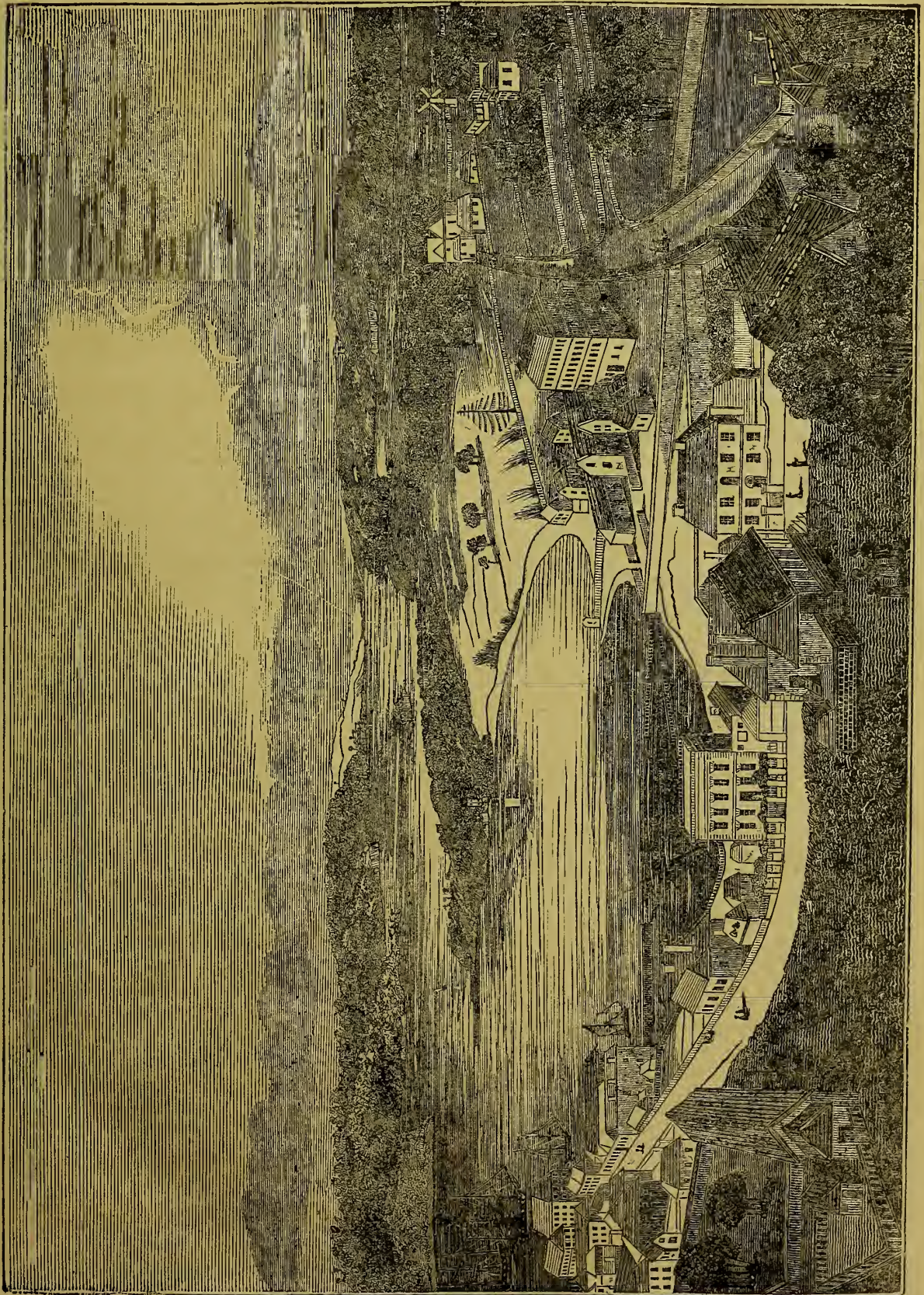
"1704, April 11.—Mr. Newton came to the Observatory; dined with me; saw the volumes of Observations, so much of the Catalogue as was then finished, with the Charts of the Constellations, both J. W.'s [Woolferman], and those copied by Vansomer; desired to have the recommending of them to the Prince: I knew his temper—that he would be my friend no further than to serve his own ends, and that he was spiteful and swayed by those that were worse than himself; this made me refuse him; however, when he went away he promised me he would recommend them, though he never intended me any good by it, but to get me under him, that I might be obliged to buoy him up as E. H. [Dr. Edmund Halley] has done hitherto."

GUIDE TO KNOWLEDGE.

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SATURDAY, DECEMBER 27, 1834.

PRICE
ONE PENNY.



SYDNEY NEW SOUTH WALES.

SYDNEY, NEW SOUTH WALES.

IN our preceding Number, a slight notice is given of the town of Sydney; the first paragraph of which we beg to repeat, as the best apology we can offer for not entering further into a detail of its localities or statistics. "So rapid are the improvements that are taking place in this important colony, that a description, which may be correct when first put on board a ship to be conveyed to England, may be deficient in many particulars ere it arrives at its destination." And, in truth, we feel, that by presenting to our readers a *fac-simile* of men and manners there, sketched by those who have become thoroughly acquainted with both, we shall impart to them matter of more interest, and, perhaps, of not less real value.

Let us, then, imagine ourselves just arrived in Sydney Cove. Numbers of boats soon surround the ship, filled with people anxious to hear news, and traffickers with fruit and other refreshments, besides watermen to land passengers, &c. You land at the government wharf, on the right, where carts and porters are generally on the look-out for jobs; and on passing about fifty yards along the avenue, you enter George-street, which stretches both to the right and left, and up which, towards the left, you now turn to reach the heart of the town.

Although all you see are English faces, and you hear no other language than English spoken, yet you soon become aware you are in a country very different from England, by the number of parrots, and other birds of strange note and plumage, which you observe hanging at so many doors, and cages full of which you will see exposed for sale as you proceed. The government gangs of convicts, also, marching to, and fro, in single military file, as they go to or return from work, and the solitary ones straggling here and there, with their white woollen Paramatta frocks and trousers, or grey or yellow jackets with duck overalls (the different styles of dress denoting the oldness or newness of their arrival), all daubed over with broad arrows, P.B.'s, C.B.'s, and various numerals in black, white, and red; with perhaps the gaol-gang straddling sulkily by in their jingling leg-chains,—tell a tale too plain to be misunderstood. At the corners of streets, and before many of the doors, fruit-stalls are to be seen, teeming, in their proper seasons, with oranges, lemons, limes, grapes, peaches, nectarines, apricots, plums, apples, pears, &c. at very moderate prices.

When strolling through the streets of Sydney, on first landing, very singular reflections will naturally intrude upon the mind, on perceiving the perfect safety with which you may jostle through the crowds of individuals now suffering, or who have suffered, the punishment awarded by the law for their offences: men banished often for the deepest crimes, and with whom, in England, you would shudder to come in contact. Elbowed by some daring highwayman on your left hand, and rubbed shoulders with by even a more desperate burglar on your right,—a footpad perhaps stops your way in front, and a pick-pocket pushes you behind,—all retired from their wonted vocations, and now peacefully complying with the tasks imposed upon them, or following quietly up the even path pointed out by honest industry. But nothing will surprise you more than the quietness and order which prevail

in the streets, and the security wherewith you may perambulate them at all hours of the night, indifferently watched as they are, and possessing so many convenient situations wherein robbers may conceal themselves, pounce upon you, and make their escape with their booty without even a chance of detection. Yet a street robbery is a very rare occurrence; and even robberies of masters by convict servants are far from being common. Brick walls, however, afford but a sorry defence against the expert and ingenious burglars here, who will pick a hole through one in a very few minutes, and effect their breach with a celerity and a silence perfectly astonishing to a new settler: stone walls are therefore generally preferred for warehouses and stores, where articles of value have to be deposited.

Sydney is most abundantly supplied with fish, which are caught with hooks and lines, chiefly towards the heads of the harbour, by the native blacks, and disposed of to the retailers, who hawk them about the town; the sounds of "Fish O," "Hot rolls, all hot," and many other English cries, often chiming in upon your ear, and calling to remembrance, in these unmusical strains, scenes you have so recently forsaken. King-fish, mullet, mackarel, rock-cod, whiting, snappers, bream, flat-heads, and various other descriptions of fishes, are all found in great plenty. Mud-oysters are brought over from Botany Bay, where they abound; and by providing yourself with a few slices of bread and butter, and other requisites, and taking a pleasant stroll round any of the romantic shores of the beautiful harbour, you may quickly secure a cheap and most delicious lunch from the sweet, and finely-flavoured rock-oysters, wherewith all the tide-rocks are crusted, and which are collected by poor individuals, and sold shelled at a shilling a quart. Cray-fish, lobsters, and prawns, are also common; while the little bays are perfectly alive with myriads of crabs during their breeding season. It is very amusing to hunt the young crabs into their element, in order to witness the way in which they are assailed by the young toad-fish, who appear always on the watch to make them their prey, darting to the very edge of the water the moment they perceive the tiny swarm approach, in order to seize them before they can burrow into the sand; and when an unlucky crab falls into their clutches, they cluster round, and each seizing a limb, shake and worry their victim as eagerly as a pack of hungry beagles would a helpless hare.

Of the natives of New South Wales, in their wild or savage state, it has been observed, that should you strike one, even if you detect him in theft, your life, at some time or other, would be the forfeit; such is their revenge, and so little do they think of a man's life. Nor must you either show fear, or bluster over them, when you are in their power, both tending to make them put you to death, but look and act with cool determination, and as if you placed the most perfect confidence in them. They possess some feelings of superstition,—for it can scarcely be called religion, since it neither influences them to the commission of good actions, nor deters them from the perpetration of bad. They believe in a good spirit, which they call Koyan, and in an evil spirit, called Potoyan. The former

is held to watch over and protect them from the machinations of the latter, and to assist in restoring the children which the other decoys. to devour. No one possesses authority farther than what his own arm, or greater intelligence, can command. Most of them possess great powers of mimicry, while their drollery and wit, particularly in applying nick-names, are truly amusing; but, looking at them in their savage state, before they became at all familiarized with the settlers, nothing can be imagined more barbarous or degrading to the human species. But we will leave the native population of the country, and speak of the anomalous society of foreigners who are no longer mere adventurous settlers, but the lords and masters both of the towns and coasts.

The grand division of the free classes, without reference to colonial technicalities, is into that of emigrants, who have come out free from England; and emancipists, who have arrived as convicts, and have either been pardoned, or completed their term of servitude; and between these two classes there is constant bickering and contention: Convicts of but recent migration are facetiously known by the name of canaries, by reason of the yellow plumage in which they are fledged at the period of landing; but when fairly domiciliated, they are more respectfully spoken of, under the loyal designation of government-men, the term convicts being dropped by a sort of tacit compact, as a word too ticklish to be pronounced in these sensitive latitudes.

With regard to the *fashionable* way of spending, or rather destroying, time in Sydney, we have the following report from a resident.

"Etiquette is, if possible, more studied among our fashionable circles than in those of London itself. If a lady makes a call, she must not attempt a repetition of it until it has been returned, on pain of being voted ignorant of due form. Morning visits, too, are made in the afternoon; afternoon calls, near the hour of bed-time; while cards are ceremoniously left, and rules of precedence so punctiliously insisted on, by some of the ultras in "first society," that the peace of the colony was once placed in imminent jeopardy, by the opening of a ball before the leading lady of the *ton* made her appearance: but the hurricane was fortunately smoothed down at the outset by the facetious and ready-witted master of the ceremonies, who assured the indignant fair that it was nothing more than the experiment of a few couples to try the spring of the new floor; and that they were still waiting her arrival to commence."

We notice these traits of fashionable life in Australia, for the purpose of remarking on their absurdity. With all the improvements in arts and science,—with all the advantages which the wide and rapid dissemination of knowledge have made in civilized society,—still how pre-eminent is the example of Folly, when garbed in the array of fashion, and bedecked with meretricious graces! From Almack's to Sydney, she flies on the wings of the wind; nought can arrest her progress: but although the career of folly cannot be wholly arrested, it may be checked; and, though feeble our voice and limited our means, we consider it our bounden duty to

"Eye Nature's walks—shoot Folly as it flies,
And catch the manners, living, as they rise."

Show yourself, at all times, so great a lover of truth, that more credit may be given to your simple word than to others' oaths.—*Isocrates*.

Understand three things;—the multitude of sins, the omission of good things, and the loss of time : foresee three things; the danger of death, the last judgment, and eternal punishment.—*Bonaventure*.

Bear patiently what ill by Heav'n is sent,
And add not to your griefs by discontent.

The Golden Verses.

THE FIVE SENSES.

(Continued from page 455.)

No. IV.—THE SENSE OF TASTE.

THE Sense of Taste is one that adds more largely to the enjoyment of life, than perhaps any of the others: hence the great misery of a fever results from its total loss. Like smell, however, it is the most transient in its impressions.

We need hardly say, that the organs of taste are situated in the mouth and tongue. They consist of a number of minute nervous papillæ; which, on coming into contact with the sapid juices of a body, perceive its flavour.

The tongue is a bundle of muscular fibres, sparingly intermingled with fat and cellular membrane, covered with a thin expansion of the common skin, and carries the branches of the gustatory nerves. On its upper surface, papillæ, differing in structure and office, are spread. Those on the middle and base, or root, are comparatively large, and of a mushroom shape; and those on the *tip* and *sides*, smaller, more numerous, of a brighter red colour, and in form like a pin's head, with a shaft wrapped in a white sheath. The former are little glands for secreting a portion of the saliva with which the mouth and food are moistened; and the latter are those which possess the exquisite faculty of perceiving the peculiar flavours of bodies. These papillæ are seated in the true skin, and are covered by the reticular tissue and the cuticle: and by the aid of a very powerful microscope, Sir Everard Home discovered that they each one contain several *nervous filaments* and many blood-vessels.



A portion of the Tip of the Tongue highly magnified, showing the papillæ.



An upright Section of one of the Papillæ of the Tongue, very greatly magnified, and split open, to shew the Nerves (engraved white) and the Blood-vessels (black).

The process of tasting is as follows:—when a morsel of food is received into the mouth, it is first touched by the tip of the tongue, and brought into close contact with the papillæ; when, if it be of a juicy nature, its taste is at once perceived; but if it be dry and solid, it is carried to the back of the tongue, moistened with saliva, which thus becoming impregnated with its flavour, and flowing over the sides of the tongue, gives to the papillæ a perception of the savoury juices.

The inner sides of the cheeks and the roof of the mouth have a few of the tasting papillæ scattered upon their surfaces, and slightly assist the function. It is owing to this that a boy who had lost his tongue still continued to taste.

NO. V.—THE SENSE OF TOUCH.

Without the sense of touch man would be a mere machine: it belongs to every part of his physical system, and is the basis of all the others. We shall confine ourselves, however, to its *superficial* operations, and describe only the sensibility of the skin to external impressions.

The qualities with which we become acquainted by its exercise, are, *hardness, softness, figure, motion, extension, heat, and cold.*

In explaining the structures adapted to this sense, we must first give an account of the structure of the skin.

The skin is not, as is commonly supposed, a simple covering, but composed chiefly of three layers, easily separable, and having each a distinct structure and use; namely, the cuticle, the reticular tissue, and the true skin.

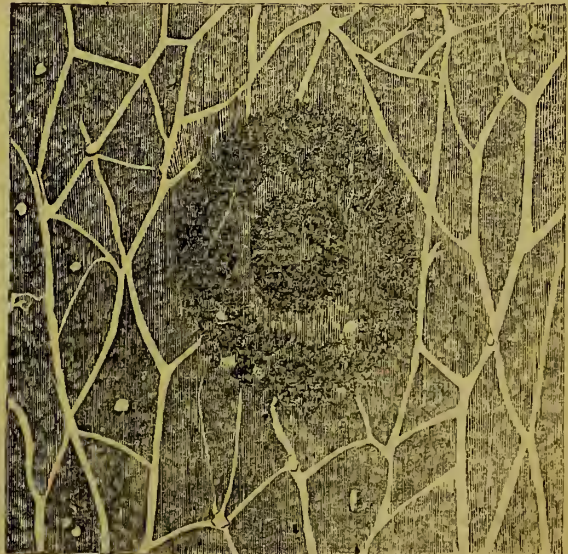
The **CUTICLE** is the first, or external layer, and is that which is raised by a blister. It is thin, transparent, and *insensible*, and serves to protect the more sensible parts beneath it, and to shield them from the too acute impressions of heat, cold, and the like. It is pierced by the hairs,

the mouths of the perspiring and absorbing vessels, and by the ducts of the glands of the skin.

The **RETICULAR TISSUE** is the second layer, and lies between the cuticle and the true skin. It is of a soft mucous structure, interlaced with little fibrous threads, and admirably protects the sensible surface of the true skin, and gives a great pliability to the general surface of the body. It is the seat of colour in the negro; a circumstance which, as we have elsewhere described, is caused by the secretion of a black pigment.



A portion of the Reticular Tissue of a White Person, greatly magnified.



A portion of the Reticular Tissue of a Black Person, greatly magnified, and showing a particle of the Black Pigment, upon which the colour of the skin depends.

The **TRUE SKIN** is the third and bottom layer. It is a firm elastic membrane, and bears upon its surface a number of glands and *villi*, or short threads, like the pile, or threaded surface of velvet. By its strength and elasticity, it defends the body from injury; by its glands, the important functions of perspiration and absorption are carried on; and by its

vili the sense of touch is produced. These *vili* of the skin contain the sensible extremities of the *cutaneous nerves*, and perform the sense of touch in the same manner as the papillæ of the tongue do that of taste. They are plentifully distributed over the whole surface of the body, but abound mostly on the tips of the fingers.

Before leaving this sense, we shall point out a few examples, in which it is exhibited in its greatest perfection. Many years ago, a celebrated *blind* organist in the Temple was famous as a keen player at whist! In the London *Blind Asylum*, the unfortunate inmates practise, successfully, a variety of trades, such as basket, rope, and lace making! And it is on creditable record, that a *blind* gentleman once made a *loom*, and worked for amusement as a weaver. But more remarkable than all, *blind* persons have been known to distinguish colours by the touch. In these cases, the sense of touch, by practice, becomes so exquisite as not to require the directing aid of sight. It is the same power which safely guides the somnambulist over house-tops, maintains the dreadful poise of the rope dancer, enables the blind man to read with his finger ends his embossed-letter Bible; and which, on a *foggy* night, makes that the safest coach which is drawn by *blind* horses.

IRELAND.

(Concluded from p. 453.)

During the reigns of Henry II. and Richard I., Ireland presented a scene of singular anarchy, from the contentions of the Anglo-Irish, who seized upon the lands of every deceased noble, and made might the rule of right. While Edward II. and Edward III., swayed the British sceptre, the country was filled with intestine commotions, and severe edicts against the Irish followed as a matter of course. A period at length seemed to arrive, when the distresses of the nation were likely to be terminated: this was the visit of Richard II. to Ireland. In October, 1394, the king landed at Waterford, accompanied by a train of nobles, and at the head of an army of 4000 men at arms, and 30,000 archers. The magnitude of this force rendered all attempts at opposition vain, and accordingly the insurgent lords submitted with as much grace as they could; while the king received them kindly, treated all with condescension and hospitality, and studied to reconcile them to English customs. The spirit of discontent, however, soon manifested itself; the ambitious daring of one party was met by the insolent tyranny of another; and the whole kingdom, during several subsequent reigns, presented nothing but bloodshed and treachery. In fact, from the time of which we have been speaking, till the defeat of King James at the battle of the Boyne, a series of insurrections and confiscations completely fill up the page of Irish history. But though there is nothing to cheer the mind of the philanthropist throughout this long period of violence and misrule, we cannot wholly omit the mention of some facts which are prominent in the annals of Ireland.

Charles I. was not only involved with his English subjects, but the power of the Irish insurgents was every day becoming more and more alarming, so that it was a matter of absolute necessity for him to conclude, if possible, an armistice with them. An Irish negotiation of great importance was opened at Oxford. By the articles of ces-

sation, it had been agreed that the confederates should send agents to the king to treat about a final peace, on the accomplishment of which great event Charles rested his hopes of a powerful reinforcement from Ireland. Accordingly, the agents appeared before the king on the 23d of March, 1544, and made a formal notification of their terms. They insisted on the public establishment of the Roman Catholic mode of worship in Ireland, on the reversal of all attainders and grants of lands since the first year of Elizabeth, with a variety of such exorbitant demands as required in reality the extinction of the English power in that kingdom. Conference after conference took place; and though the king showed every disposition to accede as much as a protestant king could, and much more than his protestant subjects would admit of, the negotiations proved fruitless. The tide of success having set in so strong against the king in England, he was too busily occupied with the pressing and immediate danger to think more of Ireland; and during the contest between him and the English parliament, the subjection of Ireland had been only an object of secondary regard; but when their triumph over the unhappy monarch became complete, it was then considered of more essential importance. Accordingly, several motions were now made in parliament to have a powerful army sent to Ireland "for the chastisement of popish rebels, and the relief of their protestant brethren." Having brought the king to the scaffold, and thus obtained the supreme sway, they resolved to take effectual measures for the reduction of Ireland, and appointed Cromwell himself Lord Lieutenant, with the command of the expedition destined for that purpose.

Cromwell steered his course directly to Dublin, with 8000 infantry, 4000 cavalry, a formidable train of artillery, and other necessities of war. He offered pardon and protection to all those who should submit to the English parliament; appointed Sir Theophilus Jones governor of the city, and marched thence to the attack of Drogheda, with 10,000 men. This place was well garrisoned and provisioned, and its defence committed to Sir Arthur Aston, a catholic officer of distinguished bravery. The vigour and intrepidity of Cromwell was, however, not to be impeded by common obstacles. Disdaining all regular approaches and formal operations of a siege, on the governor's refusal to surrender he directed his cannon against the walls, in which he made a breach in two days. He then ordered an assault, which was twice repulsed; but in the third attempt, led on by himself, the town was taken by storm. Though quarters had been promised to all who would lay down their arms, yet when the town was reduced, and all opposition had ceased, Cromwell gave orders to put the garrison to the sword. In compliance with these infernal orders, his soldiers, with seeming reluctance, massacred their prisoners in cold blood, and among others, even the governor himself, with his gallant officers. A number of ecclesiastics were found there, whom Cromwell, considering them as ministers of idolatry, ordered his soldiers to dispatch. For five days this shocking butchery continued, from which a few escaped in disguise, and about thirty were spared, who were transported as slaves to Barbadoes. Such were the barbarities this inhuman commander pretended to be in retaliation for the cruelties committed by the Catholics; but it was well known that the greater part of the garrison were English protestants. His real intention was to strike terror into his opponents; and his abominable policy had the desired effect. Many towns surrendered to his troops; and though he met with obstinate

resistance at Kilkenny, Clonmell, &c., his successes were very general. At length, the important affairs going on in England induced him to return, and he left Ireton as his successor.

Some time after, the Protector's second son, Henry Cromwell, was made lord-deputy of Ireland; and his administration was mild, just, and benevolent, tending to reconcile to the usurpation many who had been particularly hostile to it. The rule of the Commonwealth was now, however, hastening to a close. Charles II. had been restored to the crown of England, and he was soon proclaimed, with every demonstration of joy, through all the great towns of Ireland. He was very generally suspected of favouring the cause of popery, and the Irish Catholics had great hopes in him; but it was to his brother, the duke of York, to whom they looked, in the event of Charles's death, for the supremacy of their church.

Immediately on his brother's death, James declared to the council, and afterwards to parliament, "that he would preserve the government in church and state, and the rights and liberties of the nation." Yet he soon discovered his real intentions; for the second Sunday after his accession, he went openly to mass, with all the insignia of royalty. He also sent an agent to Rome, with due submission to the pope; and endeavoured to prepare the way, first in Ireland, and then in England, for the introduction of popery as the religion of the state. Several protestant judges in Ireland were removed, and their places supplied by catholics; while the protestant clergy were forbidden to touch on controversial points in their discourses; and if any one should presume to glance at the corruptions of popery, he was marked as disaffected and seditious. The corporation charters of the cities and towns in Ireland were dissolved, and new ones granted, for the purpose of filling them up with catholic voters; while sheriffs of the same persuasion were appointed for the several counties. The catholic party was now completely triumphant, and protestants had before them a dismal prospect of suffering oppression increased by insolence, and sustaining injuries without redress. The English interest in Ireland was discouraged, depressed, and threatened with total extirpation.

But new changes and commotions were approaching. The tyranny and obstinate bigotry of the king induced his subjects to seek relief in another quarter. The aid of William, prince of Orange, the son-in-law of James, was solicited; and before long, he landed in England, advanced towards the capital, and, in the sequel, James lost his English dominions, and fled to France. There he collected an army, and invaded Ireland, where he issued proclamations declaring William an usurper, and affecting equal regard for the interests of his protestant subjects in Ireland, as for those of the Romish church. An army, for the purpose of contesting with James and his adherents, was now deemed imperative; accordingly, troops for the service in Ireland were raised; and the duke of Schomberg, who was appointed to the chief command of them, set sail from Chester on the 12th of August, with about ten thousand of his forces, and part of the artillery. The next day he arrived in the bay of Carrickfergus, and landed near Bangor, in the county of Down. Though generally successful, such were the inroads made in his army by famine and disease, that William found it necessary, in the following year, to enter Ireland himself, at the head of a considerable army, and marched in the direction of the

river Boyne, beyond which James had retreated, with a force amounting to 33,000 men, where he resolved to await the issue of a battle.

This decision was exactly suitable to the interest and wishes of William, who, on the last day of June, drew up his army on the bank of the Boyne, opposite to which the Irish, under James, were encamped. On their right lay Drogheda, which they occupied with a garrison; on their left, a difficult morass; in front was the river, whose rugged banks were defended by some pieces of artillery, and furnished with huts and hedges, where the infantry might lie in security. William being anxious to get a nearer view of their position, advanced within musket-shot of a ford, opposite to a village called Old-bridge, where he was discovered by the enemy, who brought down, unnoticed, two field-pieces, and fired at him. By the first discharge, a man and two horses were killed alongside of him; and, by the second, the king himself was slightly wounded, the ball grazing his right shoulder. This William treated as a trifle; but it occasioned great anxiety to his attendants, who gathered round him in confusion; and the report of his death flew rapidly to Dublin, and even to Paris, where it was celebrated with illuminations and other rejoicings. In order to afford the most perfect assurance of his safety, the king rode through his ranks by torch-light, then called a council of war, and resolved on crossing the river the next day to give the enemy battle. It was, accordingly, put in execution, and the battle was maintained on both sides with equal ardour. But in every part where danger was the most imminent, King William was constantly present, and thus gave double vigour to his soldiers; till, at length, the troops of James were wholly discomfited; their leader fled in dismay, and shortly afterwards made his escape to France. Thus ended the contest.

The glorious Revolution of 1688, which established civil freedom in England, did not, in the same degree, extend its benign influence to Ireland. Though the Irish Protestants were the principal means of securing that island for the British crown, yet they, as well as the Catholics, were treated as a conquered people by the English parliament; and, after the death of King William, very little attention was paid to its wants, either in a civil or commercial sense, during the three following reigns. We find it, however, impossible to detail the various events which took place in, or with regard to, Ireland, from the accession of George III.; but that it was a continued series of complaints and insurrections on the one side, and of severe exactions, with ineffectual attempts to reconcile conflicting parties on the other, may be gathered from every page of our national annals. Who is there that does not recollect the miseries produced by that insatuated body, which under the name of *United Irishmen*, declared, in 1791, their determination "to obtain a complete reform of the legislature, founded on the principles of civil, political, and religious liberty?" Led on by the example of revolutionary France, and incited by the inflammatory writings of Thomas Paine, they were soon led to commit the vilest excesses, and in their turn received the reward of rebels. But we would wish to draw a veil of oblivion over scenes tending to keep alive the flame of religious or national animosity, and pass by those instances of blood and treachery, which, from whatever cause proceeding, are the direst scourges of society, and the foulest stains on manhood.

On the first day of the nineteenth century the union of

Ireland with England took effect. With events which have subsequently taken place, our readers are too well acquainted to render it necessary that we should dwell on them; and, indeed, it would be difficult to write satisfactorily on subjects of such recent occurrence, distorted as they are by the various views of party feeling and intemperate zeal. But while we deplore the calamities that afflict Ireland, without entering into a recapitulation of them; and while we condemn the designs of those who are wicked enough to fan the flame of civil discord, instead of soothing the passions of the multitude, and endeavouring to mitigate the evils of which they complain; let us fervently hope, not more for the safety and honour of these realms, than for the interests of humanity, that a day of moral regeneration is at hand.

PRUDENCE.

THE due exercise of this virtue will save us from many dangers and disasters. It is a principle that extends to every thought, word, deed, and concern of human life: without it no person is secure from mischief, but sure to run into harm's way, or fall into disgrace. Cicero alludes to this virtue very emphatically, when he condemns the conduct of those who act in a headlong, or incautious manner; thus warning his son against negligence of forethought and consideration: "*Insipientis est decere non putaram.*" It is the property of a fool to say, "I had not thought;" and, assuredly, for a man to plead his excuse for having done wrong, by imputing his error to peripatancy and inadvertency, is nothing less than declaring his want of thought; and, consequently, (if Cicero was a correct logician and true philosopher,) he might apologize in one word by calling himself a *fool*,—a title that scarcely any one will be willing to take upon himself, and least of all he that best deserves it. If it were asked to define prudence by some figurative term that should comprehend an idea of its properties, without the necessity of enlarging upon its exercise in the multifarious concerns of life, there seems to be none more apposite than to call it the *eye of the mind*; the very *Argus* of all our intellectual faculties. He that has not prudence passes through life blindfolded; his whole fortune is a chance medley, and he walks hoodwinked over red-hot ploughshares. Prudence that takes root in our thoughts is the parent plant; and if it be well inserted there, it will, when agitated by concussions of affairs, scatter its seeds over the whole field of human action, becoming a forest whose shade protects and preserves alike from the pelting and pitiless storms of adversity, or the too fervid ray of the sunshine of prosperity, when sprung up and matured. But prudence must first be planted in our thoughts; there it germinates, and from thence it propagates its genus, in all the departments of human culture: from thence it extends to intention, will, inclination, language, and performance; and it generally discovers itself and its source, when it issues from the lips. There is, no doubt, much prudence in a reasonable taciturnity; but the prudence of a man in this respect, is conditional, and was not inaptly explained by Mr. Pope, through a curious sort of paradox, who, when he had observed a particular person to be always silent, remarked, "If that man be a fool, he is wise; if a wise man, he is a fool." Enigmatical as this may seem, it was

true; for a fool acts wisely who holds his tongue, and a wise man foolishly who never gives society the benefit of his conversation. Prudence does not sanction any extreme; it points to a medium, and does not enjoin silence: its only caution lies in the *memento*—*Verbum emissit nunquam revertitur*; and it behoves us to part discreetly, and not too flippantly, with that which we cannot recal.

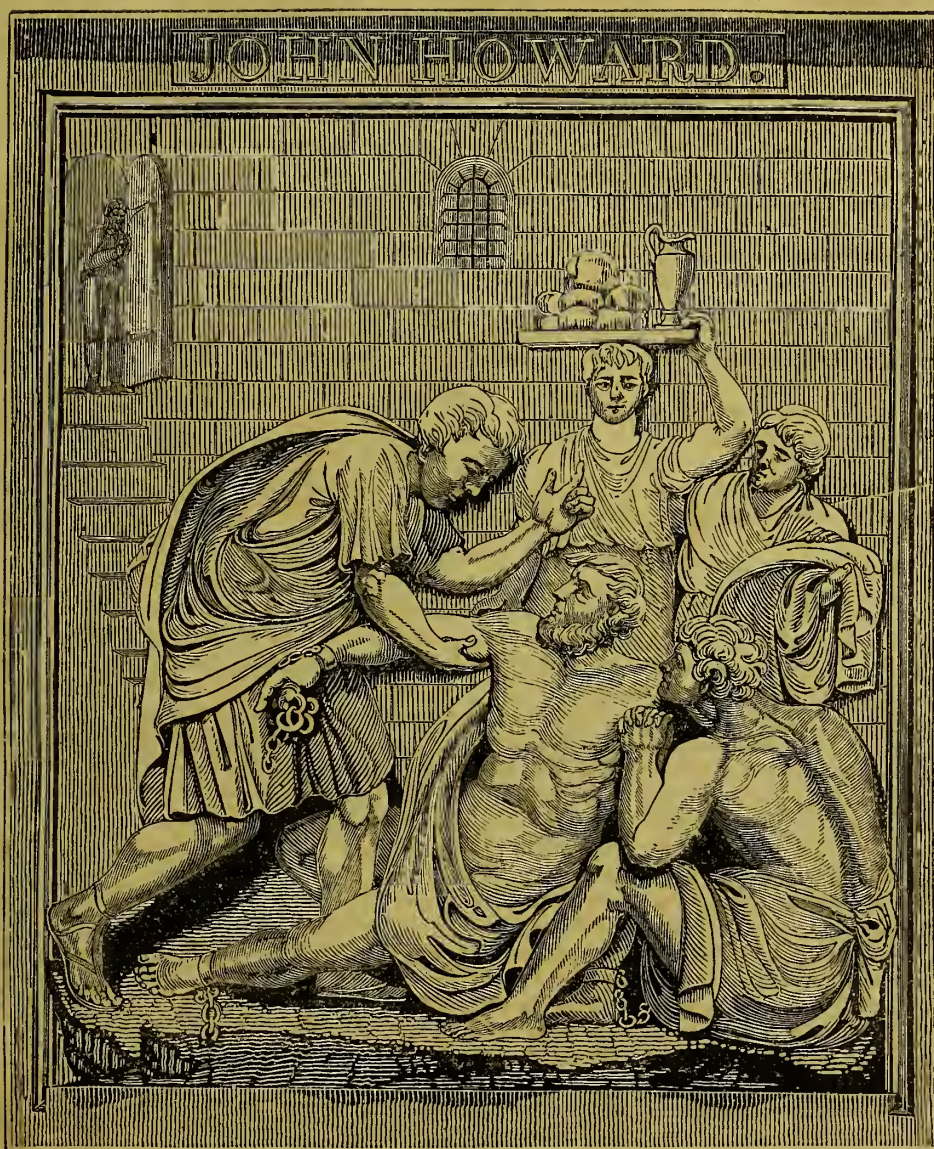
From prudence in speech we come to prudence in conduct; and in this respect it has so many ramifications, that it is impossible to enumerate them all; it spreads its branches on every side, and shoots the fibres of its roots through all concerns, demeanour, social intercourse, friendship, habit, business, pleasure, &c. &c. In short, we cannot lift a hand, nor set a foot safely, without a regard to the precepts of prudence: it is the warning-board of the world's delusions, on which are painted the notices of dangers, the man-traps and spring-guns of a selfish and wicked generation; but while we say a wicked generation, prudence tells us that we are a part of that generation, and that we should endeavour to make it better by our counsel and assistance.

Men are often deceived by mistaking opinion for prudence, and giving themselves up to prejudice; and those men interpret the precepts of prudence either ignorantly, or, what is worse, perversely; they are desirous of making prudence accord with their propensities, rather than to bend their notions, and form their sentiments, by the true rule and model of prudence herself. Thus the miser condemns the profligate, and boasts of his prudence; the profligate retorts on the miser, condemns his parsimony, his penury, and voluntary poverty, and thinks it prudence to enjoy while he may all that profusion and extravagance can afford him. Neither of these has any sanction from Prudence; she gives no countenance, as we have above observed, to extremes of any kind.—Youth will have prudence by consulting experience, from the aged, and from history; as they will travel the safest who have the most correct chart of the country through which they have to pass, or who are accompanied and admonished by a guide that has travelled the road before; but he who sets out heedlessly and confidently will soon lose his way, and learn by his disaster that prudence has been left behind. In all that concerns our mortal designs and transactions, prudence is requisite to ensure success; but if we confine our prudence to temporalities alone, we limit her to a sphere which is unworthy of her sublimest attributes; for while she leads by the hand, she warns the heart with the sublimest hopes, prepares for a better state, points to the end, and accompanies and accelerates us on the way.

His time, the day and night, he distributed by the burning of certain tapers into three equal portions; the one was for devotion, the other for public or private affairs, the third for bodily refreshment.—*Milton.*

Think that is just, 'tis not enough to do,
Unless thy very *thoughts* are upright too.

Randolph.



Bas Relief on Howard's Monument, in St. Paul's Cathedral.

BIOGRAPHY OF JOHN HOWARD.

It is our intention to give to our readers, during the present year, a Series of Lives of the most eminent and distinguished individuals of all ages, and of all nations; and we think we cannot commence our task with a more pleasing subject than the biography of one of the greatest philanthropists that it ever fell to the task of a biographer to narrate,—the “Benevolent Howard.”

The village of Hackney, near London, was the birth-place of this indefatigable friend of the poor and the unfortunate. He was born in 1716, and while very young, had the misfortune to lose his only surviving parent,—his father, who, by industry and strict integrity, had acquired a considerable fortune, as an upholsterer, in Long-lane,

Smithfield. As the will of his father did not permit young Howard to enjoy his patrimony till he had reached his twenty-fourth year, his guardians thought it prudent to apprentice him to a Mr. Newnham, a wholesale grocer in the city of London. He continued a few years in this occupation, but finding his health too delicate to devote his entire attention to it, on coming into the possession of his property, he purchased of his master the remainder of his time, and determined on making a tour through France and Italy, in the hope that the change of climate would repair his weakened constitution. After the lapse of a little time, Howard returned to England, and took up his abode at the house of a widow in Stoke Newington. The

excessive kindness and attention he received from this lady, so worked upon his grateful disposition, that he was induced to form an attachment for her, and at last, though her age was far greater than his own, to make her his wife. This union, however, lasted but three years; for in 1755, death deprived him of his endearing partner. To divert himself from the melancholy reflections occasioned by this event, he made up his mind to another tour on the continent, and being desirous of viewing the state of Lisbon after the dreadful earthquake that had befallen that city, he embarked in the *Hanover* frigate for Portugal. In this voyage, the vessel in which he sailed was attacked and taken by a French privateer. Himself, with the rest of the crew, were conveyed to Brest, and there incarcerated in a filthy dungeon belonging to the castle of that place. The harsh and cruel treatment they all received made a strong impression upon Howard, and seems to have

awakened those sympathetic and benevolent feelings in favour of the prisoners, which he, subsequent to this event, so extensively displayed, through a period of sixteen years; the greater part of which was occupied in visiting the hospitals and prisons of his own and foreign countries, for the purpose of rendering them less pernicious to health, and more comfortable for the miserable tenants that were confined in them.

On his return to his native country, Howard retired to a pleasant villa near Lymington, where he soon after formed a matrimonial connexion with an amiable young lady. This, like his former marriage, lasted but a short period, his wife dying in child-bed after she had given birth to a son. Howard bore with fortitude his bereavement, but was compelled to leave the scenes of Lymington, the place where he lately had so much enjoyment. He went to Cardington, near Bedford, at which place he

had purchased an estate, and occupied himself in adopting various schemes of benevolence for ameliorating the condition of his tenantry, and in finding employment for the poor of the neighbourhood. In 1773 he was nominated high sheriff of the county of Bedford, which, as he himself observed, was a situation that gave him numerous opportunities of visiting the several jails under his jurisdiction, and of providing remedies for many and various evils, besides leading him into the benevolent design of procuring alleviation to the miseries of those sufferers who were confined in the other jails and bridewells throughout England. In 1774 he was examined before the House of Commons, on the subject of the prisons, and received the thanks of the House for his attention to them. Thus encouraged, after completing his inspection of the British prisons, he determined on extending his views to foreign countries. With this design he made several journeys through the various states of Europe, which occupied his cares and anxieties from 1775 to 1787, during which period his sister died, leaving him a considerable property, which his good heart regarded as the gift of Providence to promote his humane and charitable undertaking. In 1777 Howard published "The State of the Prisons in England and Wales, with Preliminary Observations, and an Account of some Foreign Prisons." This was a quarto volume, and dedicated to the House of Commons. In 1780 he published an Appendix to this work, with a sketch of his travels in Italy; and in 1784 re-published it, extending his account to many other countries.

In his mode of living, Howard was a very plain man, particularly on his journeys. He would at one time live entirely on potatoes; at another, on tea, and bread and butter: as for tea, so favourite a beverage was it, that he generally carried all the utensils necessary for making it packed up in his luggage, tea-kettle and all. No weather stopped his journeyings; neither rain, hail, snow; nor even the piercing winters of the most northern climate. In his route he visited Copenhagen, Stockholm, St. Petersburg, and Moscow; in fact, the capital and large towns of every state in Europe, north and south.

After spending so many of his years in improving the jail discipline of this country, as well as that of foreign states, his untiring energies and unceasing humanity would not suffer him to remain inactive. Mr. Howard, therefore, determined again to quit his home, but upon an object, perhaps, of greater charity, yet fraught with considerable danger. His desire was to check the progress of the destructive plague, by inspecting the condition of the principal lazarettos in Europe, and prescribing, if possible, some remedy. He departed for Italy, and proceeded thence to Turkey, examining in his route the prisons and hospitals of Constantinople, Smyrna, and other places. From this country he retraced his steps to Venice where, at the instance of unparalleled philanthropy, he submitted himself to undergo the severest privations, and become an inmate of a most wretched and loathsome lazaretto; and his object, reader, was to acquire some information respecting the treatment of those individuals who were supposed to be suffering from the plague! During these hazardous transactions amid the sufferings of so dreadful an infection, the vigorous mind of Howard shrunk not a hair from the task it had undertaken. Being liberated, in due course of time he returned to England. Soon after, he published "An Account of the principal Lazarettos in Europe, with various Papers relative to the

Plague, together with further Observations on some Foreign Prisons and Hospitals; and additional Remarks on the present state of those in Great Britain and Ireland."

In the volume just mentioned, Mr. Howard announced his intention of revisiting the continent, in order to re-examine the prisons and hospitals of Holland, Germany, Prussia, and Russia, and of extending his tour in the East. This was the seventh and last journey of this indefatigable man, and it appears that he himself was fully impressed with the belief that he should not live to revisit his native country. "I am not insensible," says he, "of the dangers that must attend such a journey; trusting, however, in the protection of that kind Providence which has hitherto preserved me, I calmly and cheerfully commit myself to the disposal of unerring Wisdom. Should it please God to cut off my life in the prosecution of this design, let not my conduct be uncandidly imputed to rashness or enthusiasm, but to a serious, deliberate conviction, that I am pursuing the path of duty, and to a sincere desire of being made an instrument of more extensive usefulness to my fellow-creatures than could be expected in the narrower circle of a retired life." This impression was sadly verified,—Howard actually falling a sacrifice to his benevolence. After penetrating as far as the borders of the Euxine Sea, he went to Cherson, in Russian Tartary. In one of his visits to the infectious hospitals of that place, he caught a malignant epidemic fever,—a species of plague that was at that time raging among the wretched inmates. His constitution, notwithstanding he received all the care and attention the place could afford, gave way under the severity of the disease, and he died January 20, 1790.

Thus died the virtuous and benevolent Howard,—a loss that ever will be felt throughout every country of the civilized world. In his own country, his labours have directed the attention of Government to the regulation of public prisons, in many of which his improvements have been adopted; so that, instead of imprisonment being the means of confirming and increasing depravity; it will be the successful instrument of amendment, both in morality and in industry; while the few criminals who are past amendment, will be compelled to be beneficial to the community by their labour.

As the instigator, and we may say the author, of these beneficent and important alterations, Howard will ever be entitled to the respect and gratitude of his country; and the monument in St. Paul's cathedral, erected to his memory, is a proof that this gratitude is not inert. It is the work of Mr. Bacon, and represents Mr. Howard in a Roman dress, with a look and attitude expressive of benevolence and activity, holding in one hand a scroll of plans for the improvement of prisons, hospitals, &c.; and in the other a key; trampling the while on chains and fetters. A bas-relief on the pedestal, represents him in the act of relieving the wants of a poor prisoner; and is altogether so characteristic of the man, that we have placed an engraving of it at the head of this article. The inscription gives a sketch of his life, and concludes with these words: "He trod an open, but unfrequented path to immortality, in the ardent and unremitted exercise of christian charity. May this tribute to his fame excite an emulation of his truly glorious achievements!"

In conclusion, we cannot refrain from adding to this the eloquent eulogium of the immortal Burke on this worthy man; in every sentiment of which we most heartily coin-

cide—"I cannot name this gentleman (Mr. Howard) without remarking, that his labours and writings have done much to open the eyes and hearts of mankind. He has visited all Europe,—not to survey the sumptuousness of palaces, or the stateliness of temples; not to make accurate measurements of the remains of ancient grandeur, nor to form a scale of the curiosity of modern art; not to collect medals, or collate manuscripts;—but to dive into the depths of dungeons; to plunge into the infection of hospitals; to survey the mansions of sorrow and pain; to take the gauge and dimensions of misery, depression, and contempt; to remember the forgotten, to attend to the neglected, to visit the forsaken, and to compare and collate the distresses of all men, in all countries. His plan is original, and is as full of genius as it is of humanity. It was a voyage of discovery; a circumnavigation of charity. Already the benefit of his labour is felt, more or less, in every country; I hope he will anticipate his final reward, by seeing all its effects fully realized in his own. He will receive, not by retail, but in gross, the reward of those who visit the prisoner; and he has so forestalled and monopolized this branch of charity, that there will be, I trust, little room to merit by such acts of benevolence hereafter."



Tomb of Howard, at Cherson, in Russian Tartary.

CHINESE FEAST OF LANTERNS.

ON the Feast of Lanterns, every part of the empire is so completely illuminated, that if a person could take a view of it at once, all the country would seem in a blaze; for every one, both in city and country, on the coast and on the rivers, light up painted lanterns, of various forms and sizes. Persons of ordinary rank will expend a sum equal to ten or fifteen pounds of English money on this occasion, and the emperor and his chief mandarins will spend two or three hundred. Even the most indigent families exert themselves on this festival; and, according to the best of their abilities, contribute to the general illumination.

The lanterns used on this occasion are generally large,

of various shapes, and covered with transparent silk, on which are painted flowers, animals, and human figures; they are lighted by lamps or wax candles, and to the corners of each are fixed elegant streamers of silk or satin. Some of the largest lanterns exhibit moving figures, like the Chinese shades, that may be seen in London. Persons, who lie concealed, put these figures in motion by means of imperceptible threads; and the spectators are highly amused with horses galloping, ships sailing, armies in full march, &c. Some accompany these moving figures with humorous expressions, that seem to proceed from the shades on the lantern; while others carry about serpents of an enormous length, illuminated within from the head to the tail, and so contrived that they wreath about in different forms, as if they were alive.

To augment the splendour of this festival, the Chinese exhibit a variety of those capital fire-works for which they are universally celebrated. Magailens informs us, that he was greatly surprised at one of these exhibitions, where an arbour of vines, with red grapes, was represented, and the arbour burnt without being consumed: the colour of the wood, fruit, and foliage, was also represented with astonishing exactness. The excellence of the Chinese artists, however, may be better conceived from a description of a spectacle of this nature, which was exhibited by the emperor Chang-hi, for the diversion of his court. The fire-works commenced with six large cylinders, planted in the ground, which sent forth so many streams of flame, rising to the height of twelve feet, and falling in beautiful showers. These were followed by a covered box, supported by two pillars, which threw up a shower of fire; several painted lanterns, and sentences, written in large characters of burning sulphur; and six elegant branched candlesticks, with different tiers of lights, ranged in circles so brilliant, as to disperse the darkness of the night. At last the emperor set fire to one of the works, and it was instantly communicated through an extent of eighty feet; the fire reached several poles and painted figures, whence proceeded a prodigious multitude of rockets, and, at the same time, a number of painted lanterns and branched candlesticks were lighted in all directions.

ELECTRICITY.

IN the former articles on Electricity in the "*Guide to Knowledge*," a brief description was given of the machine by which ordinary electricity is excited, and an explanation of the terms most frequently employed in treating on that branch of science. We shall now proceed to describe a few simple and familiar modes of producing electric excitation.

Rub briskly a glass tube, of about one inch diameter, with a warm and dry silk handkerchief, and hold it near a light downy feather suspended on a piece of white sewing silk: the feather will be attracted by it, and they will adhere together; but if the feather be withdrawn, and again presented to the glass rod, it will be repelled. A similar effect will be produced if a stick of sealing-wax be briskly rubbed with a warm piece of flannel, or even on the coat sleeve, provided it be dry: attraction of the feather will first take place, and subsequently repulsion. If, however, the feather after having been repelled by the excited glass, be presented to the excited wax, it will be

attracted; and in like manner, the feather after repulsion by the wax will be attracted by the glass. It appears, therefore, that there are two kinds of electricity, or that electricity exists in two states. That which is produced by the friction of glass was formerly called vitreous electricity, and that excited in wax, or similar bodies, the resinous. The terms positive and negative, and plus and minus, are now, however, more generally employed.

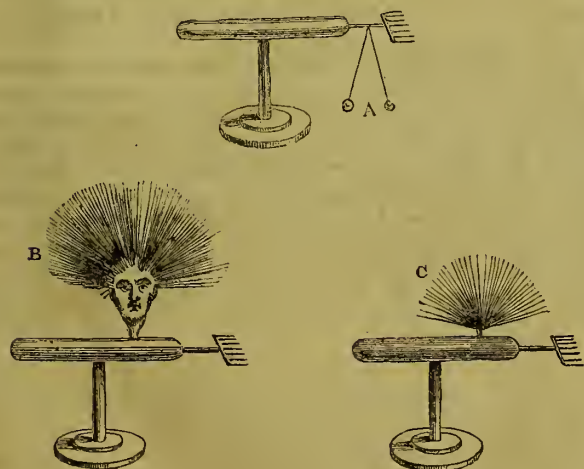
It is evident, by a variety of experiments, that the exciting body and the substance excited, are in different states of electricity; one is positive, or plus, and the other negative, or minus. This may be proved by rubbing the glass tube with the warm silk handkerchief carefully folded, and electrifying the feather; repulsion will then ensue, because both bodies are in the same state; but if the handkerchief be presented, the feather will be attracted, because that is in a different state. It is an axiom that all bodies in a similar state of electricity repel each other, and only those in a dissimilar state can attract. The mutual repulsion of light substances similarly electrified, may be shown in a very satisfactory and amusing manner, by the following experiments:—

Hang over the conductor of the electric machine a piece of thread with a small pith ball attached to each end, so that the balls touch each other. Turn the handle, and the electricity being conveyed to both the balls, they will repel each other.

Insert in the conductor, a series of glass threads tied together at one end, (called the glass feather,) turn the handle of the machine, and the threads will diverge in every direction. An amusing toy is sold at the philosophical instrument makers, which shows the same fact in a singular manner. It is the head of a figure covered with hair, which when electrified, literally stands on end.

If a person with rather long hair stand on an insulated stool (a stool with glass legs, to prevent the dissipation of the electric fluid), and touch the conductor while the handle is turned, his hairs will diverge in a similar manner.

The following engravings represent the appearance in the experiments first named.



A, the pith balls; B, the head of hair; C, the glass feather.

Glass and wax have been mentioned as materials for the excitation of electricity by friction, but there are many other bodies capable of developing the same phenomena. If a sheet of dry foolscap paper be briskly rubbed with a piece of Indian rubber, electricity will be excited, and the

feather will be attracted. If a piece of black silk ribbon, with a piece of white of equal length, be held firmly by the ends with one hand, and rubbed with the other, and immediately separated, they will then attract each other. Sulphur, and other *non-conductors* of electricity, may be excited in the same way as glass or wax. It must not, however, be inferred that only non-conductors can be electrically excited; if a rod of metal were rubbed with a proper exciter there is no reason to doubt that its electric condition would be altered, but its conducting power prevents its palpable development.

The attraction and repulsion of electrified bodies may be satisfactorily shown by placing on the end of the conductor a tumbler of glass, and turning it so that different parts shall be exposed to the fluid excited, when the machine is in action. Invert the tumbler thus charged with electricity over a few pith balls: immediately they will ascend to the upper part of the glass, and descend with great rapidity; and this action will continue until the electricity of the tumbler is lost. The balls are attracted by the glass, and receive from it electricity, they are then repelled by it, the electricity being similar,—this they part with when fallen, and rise to take another portion. If the tumbler be well electrified the action will continue for several minutes.

(To be continued.)

ON THE ORIGIN AND PROGRESS OF THE ENGLISH LANGUAGE.

(Continued from p. 8.)

MR. DRAKE shows the affinity of the Gothic to the English language still stronger, in selecting a portion of the tenth chapter of St. John from the translation of Bishop Uphilas, and "confronting" it, as he terms it, with our present translation. His explanation of the first verse, will afford a sufficient illustration.

The original Gothic is,—

Amen, Amen. *Quitha izwis, sa ni atgangith in thairu daur in garden lambe, ak steigith alathro sa ist hlistus.*

Verily, verily, *Quitha* I say, *izwis* to you, *sa* he that, *ni atgangith* in entereth not, *thairu daur* through the door, *in garden lambe* in the sheep-fold, *ak* but, *steigith* climbeth up, *alathro* some other way, *sa* he, *ist* is, *hlistus* a robber.

After separating the words from the context, he then examines each particular word; whereby, notwithstanding the variations of orthography and pronunciation which necessarily must be in, the two tongues, it appears very visibly, that the one is the genuine production of the other. As—*quitha*, I say, still preserved in the old words *quoth*, and *quotha*. *Izwis*, the Somersetshire dialect for you. *Atgangith* in, from *gang*, in the Scotch and North-country phraseology; meaning to go. *Thairu daur*, through the door; a sentence which explains itself by its sound. *In garden lambe*, in the lamb-guard, or sheep-fold. The Saxon *ortgearde*, or, as we have modernized it, orchard, meaning an outward inclosure of fruit-trees, as well as garden; and the terminating word in the compound vineyard, or guard, as well as numerous other words, in which the term guard is employed, all imply a place of security; but if the resemblance is denied here, Mr. Drake observes, we are at liberty to introduce the Saxon *secape-folde*, equally Teutonic, and the root indisputably of our sheep-fold.

Steigeth, climbeth up. The North of England appellation, among the lower sort, for ladder, is *stee*, whence, also, *stile*, an ascent of steps, and other similar terms, all wherefore are derivative from the Gothic *steigair*. In *alother*, our word *other* is sufficiently discernible. The last word, *hliftus*, a robber, seems the most unconnected with modern English; but the accurate observer may perceive it lurking in the compound *shop-lifter* (shop-robber). To steal a cow was also, in the old Scottish law-phrase, called "cow-lifting."

It has been usual to divide and distinguish the prevalence of the Saxon speech in this kingdom, by three epochs; and Hicks has marked them with great accuracy and precision. The first is that which was spoken for the space of at least 300 years; from the Saxons first entering the kingdom, about the year 450, to the coming in of the Danes; when, borrowing from, as well as lending to, their new co-patriots, the Britons and the Picts, it is probable the purity, if not the simplicity, of both, was, for a while, impaired by such random interchanging. The language of this period may be called the Britanno-Saxon. The next is the Dano-Saxon, which prevailed, and more especially in the northern parts of the island, for a space of 274 years, till it gave way to the Normano-Saxon, which commenced at the Conquest, and lasted till the time of Henry II.

What was the form of the Saxon language during the first of those periods, cannot now be known. The Saxons seem, on their first entering Britain, to have been a people without learning, and not improbably without an alphabet; their speech, therefore, having been always uncursory and extemporaneous, must have been artless and unconnected, without any modes of transition or involution of clauses; which abruptness and inconnection may be observed even in their later writings. This barbarity may be supposed to have continued during their wars with the Britons, which, for a time, left them no leisure for softer studies; nor is there any reason for supposing it abated, till the year 570, when Augustine came from Rome to convert them to Christianity.

The earliest specimen of pure Saxon is the song, or hymn, of Cædmon, a Saxon monk of Whitby Abbey, who died in 680, and which Alfred the Great inserted in his version of Bede's Ecclesiastical History. Specimens of the language of this period also exist in a version of the Gospels, and in some other compositions. An English translation of the former fragment, the oldest monument of the language, follows:—

"Now should we praise
The Guardian of the heavenly kingdom,
The mighty Creator!
And the conceptions of his mind,
Glorious Father of his works!
As he of every glory,
Eternal Lord!
Established the beginning;
So he first made
The earth for the children of men,
And the heavens for its canopy.
Holy Creator!
The middle region,
The Guardian of mankind,
The eternal Lord
Afterwards made,
The earth for men,
Almighty Ruler!"

The next specimen exhibits the Saxon of a subsequent date. The English letters are also used in this instance:

Thei lit ves dai a margen,
And dugetha gon sturien;

Arthur tha up aras
And strehte his armes.
He aras up, and adun sat,
Swila he weore swithe scooc.
Tha axede him an vair cniht,
Lauerd hu hauert thu inaren to niht
Arthur tha andswarede,
A mode him was unethe,
To niht a mine slepe,
Ther ich lai on hure
Me imatte a swenen
Theruoere ich ful sari am."

MR. TURNER'S TRANSLATION.

Then it was day in the morning,
And the nobles began to stir;
Arthur then rose up
And stretched his arms.
He rose up and set down;
Indeed he was very sick.
Then asked him a true knight,
Lord, how hast thou been to-night?
Arthur then answered,—
And his mind was uneasy to him,—
To-night in my sleep,
Where I lay on my bed,
I dreamt a dream,
Whereof I am full sorry."

The Anglo-Saxon law, before the reign of Athelstan, and the works of Alfred, may be referred to, as well as the above, as containing the Anglo-Saxon language in its purest state.

The Dano-Saxon originated with the invasion of the Danes. The language that people spoke originated from the ancient Teutonic, as well as that of the Saxons; and, on their settlement in Britain, it did not long continue a distinct tongue, but was so blended into the Saxon language, that it soon became a particular dialect of the same. This kind of Anglo-Dano-Saxonic was chiefly spoken in Northumberland and in East Anglia, where the Danes principally resided. The celebrated Alfred when he visited, under the disguise of a minstrel, the Danish camp, must be supposed not only to have played, sung, and spoke, so perfectly in the character he assumed, as to excite no suspicion of his being an alien, but he must also readily have understood what he heard others speak; it being one of the principal motives of his adventurous attempt, to learn, if possible, the counsels and plans of his adversaries.*

The extreme inattention, either to correctness or elegance, during the dominion of these little less than savage tribes, composed of the scum and dregs of various nations,—but all going under the general denomination of Danes, and sometimes of Normans,—was such that their speech partook of their own character, and became barbarous. No modern dialect, nor even those of less enlightened periods, can bear any comparison with the gross barbarism which, in those days, must have prevailed even in courts. Thus we find *mec*, *meck*, and *mek*, for me; *thec* and *thek*, for thee; *juh*, for you; *iner* and *innerre*, for your; *usieh*, *usig*, and *usih*, for

* Swedish, which is a dialect of the Danish, and differing little more from it, than the dialect of the west of England from that of the metropolis—bears so great an analogy to English, that Coxie, in his Travels through Sweden, was struck with the resemblance, not only in single words, but in whole phrases; so that a quick English ear might comprehend many expressions in common conversation. "Among other instances of this kind," says he, "I heard the postilion cry out, 'Kom, let oss go—let oss se—stand still—hold dia tunge—go on.' I naturally inquired their meaning of our interpreter, and found that they had the same signification as in our own language. They are, for the most part, pronounced more like the Scotch than the English accent; and, indeed, in general, the Swedes appeared to me as if they were talking broad Scotch."

us, or we; with countless other varieties and corruptions in almost every word,—all equally wild, grotesque, ludicrous, and absurd; (the writings of King Alfred, and Cædmons, just quoted, which are supposed to belong to this period, excepted.)

The Norman-Saxon dialect formed a language extremely barbarous, irregular, and untractable; and, consequently, afforded no very striking specimens in any species of composition. Its substance was the Danish-Saxon, adulterated with the French. The Saxon, indeed, a language subsisting on uniform principles, and polished by poets and theologists, however corrupted by the Danes, had much perspicuity, strength, and harmony: but the French, imported by William the Conqueror, and his people, was a confused jargon of Teutonic, Gaulish, and vitiated Latin. In this fluctuating state of our national speech, the French predominated. Even before the Conquest, the Saxon language began to fall into contempt, and the French, or Frankish, to be substituted in its stead; a circumstance which at once facilitated and foretold the Norman accession. In the reign of Edward the Confessor, the resort of Normans to the English Court was so frequent, that the affectation of imitating the Frankish custom became almost universal. It was not, however, till about the year 1150, that this Norman-Saxon began to take a form, in which the beginning of the present English may be plainly discovered. This change seems not to have been the effect of the Norman Conquest, for very few French words are found to have been introduced in the first hundred years after it; the language must, therefore, have been altered by causes like those which, notwithstanding the care of writers, and societies instituted to obviate them, are even now daily making innovations in every living language. A specimen of the language of this age, from the year 1135 to 1140, exists in the Saxon Chronicle, of which the latter part was apparently written near the time to which it relates, and also in various pieces of poetry.

During this dawn of the English, it should be observed, that though the language began to assimilate more to modern usage, the Saxon letters were still kept up in all writings, which creates a difficulty in reading it to persons unacquainted with the Saxon alphabet. It was a common, and, indeed, a very natural practice, for the transcribers of Saxon books, to change the Saxon orthography for the Norman, and to substitute in the place of the original Saxon, Norman words and phrases, still retaining the characters of the original. A remarkable instance of this liberty, which sometimes perplexes and misleads the critics in Anglo-Saxon literature, appears in a voluminous collection of Anglo-Saxon homilies, preserved in the Bodleian Library, and written about the time of Henry II. The Saxon was, probably, spoken in the country long after the period we are treating of, but with various adulterations from the French: the courtly language was French, yet, perhaps, with some vestiges of the vernacular Saxon. But the nobles, in the reign of Henry II., constantly sent their children into France, lest they should contract habits of barbarism in their speech. Robert Halcot, a learned Dominican friar, confesses, that in the beginning of the reign of Edward III. there was no instruction of children in the old English. He complains that they first learned the French, and from the French, the Latin language. This he observes to have been a practice introduced by the Conqueror, and to have remained ever since. There is a curious passage relating to this subject in Trevisa's Translation of Higden's Polycricon: "Children in scole, against the usage and manir of all other nations beeth compelled for to leve hire owne lan-

guage, and for to construe hir lessons and hir thynges in Frenche; and so they haveth see the Normans came first into Engelond. Also gentilmen children beeth taught to speke Frenche, from the time that they bith rokked in here cradell, and kanneth speke and play with a childe's broche: and replandishe men will likne himself to gentylmen, and fondeth with greet besynesse for to speke Frenche, to be told of. This maner was moche used to for first deth, and is sith some dele changed; for John Cornewaile, a maister of grammer, changed the lore in grammer-scole, and construction of Frensche into Engliche: and Richard Penriche lernede the manere techynge of him as other men of Penriche. So that now, the yere of our Lord a thousand thre hundred and four score and five, and of the seconde Kyng Richard, after the Conquest nyne, and [in] alle the grammere scoles of Engelond, children lerneth Frensche and construeth and lerneth in Engliche," &c.

(To be continued.)

SKETCHES OF THE ARTS AND SCIENCES.

No. I.—AGRICULTURE.

To "guide" our young readers in the study of the arts and sciences, we contemplate giving them, in the course of this year, concise sketches of each department of those two classes of subjects. Our space, did our inclinations tempt us, will not permit lengthy treatises to be attempted, but merely some few lines necessary for the detail of essential properties and features. We begin with Agriculture.

This is an art of the very first rank, and is one of those, which, by way of pre-eminence, are termed the "Liberal Arts." It feeds us; it supplies our necessities; and is the source of that actual wealth and property, which, not depending upon opinion, possesses real and permanent value; and also affords the principal revenue of a state.—It is the science of rural affairs; the art of cultivating and tilling the ground, so that it shall be fruitful, and afford grain and pasturage in abundance.

The agriculturist may be the "lord of the manor;" the proprietor of the "domain;" or the blunt and simple "farmer," who, generally, is but the tenant of a small domain, paying, for its use, a certain annual value.

We will now mention a few of the qualifications necessary for a man to possess who presumes to be a husbandman, a "tiller of the ground." First,—he must thoroughly understand the nature and variety of soils, and the proper methods necessary for their cultivation and improvement. Secondly,—he must so prepare the earth by ploughing, harrowing, and other labour, as to make it productive of good and fine fruits. Thirdly,—a perfect knowledge of the quality of good and sound corn, and other seeds, he must have; besides being well-informed in the proper times and seasons for sowing them. Fourthly,—he must be a competent judge of meadow and wood-land; and so far acquainted with the nature, plantation, and appearance of trees, as to be able, at one glance, to form a correct estimate of the timber they would produce. Fifthly,—the choice and management of cattle must be thoroughly understood by him; such as the good and bad qualities of horses, the proper food for the various kinds of herds and flocks, the diseases they are subject to, and the remedies necessary to prevent and to cure them. And, lastly, though of the first importance, the agriculturist

must be well versed in the use of the plough, the harrow, yoke, mill, sieve, spade, hoe, mattock, rake, pruning-knife, and all the other instruments used in the cultivation of land.

Order, frugality, cleanliness, and industry, are qualities too essential to be forgotten; they form the very groundwork of prosperity, and the husbandman that is void of them had better look to the workhouse than to his farm.

From the above qualifications it will appear that the farmer must be, or *ought* to be, intimate with geology, mineralogy, chemistry, botany, medicine, and natural history.

Now we will advert to the several kinds of agricultural property. Corn-land is that cultivated ground appropriated to the growing of wheat, and other grain. It requires much labour and attention, and a thorough acquaintance with the nature of the soil, so as to know what rotation of crops will yield the greatest produce. Wood-land, which is the most lucrative of rural property, from its requiring little expense and trouble, and from being subject to fewer accidents, is land occupied in nourishing trees and wood generally. A wood, newly planted, consists of fine young trees, well rooted, and the ground between the trees is generally cultivated. The thinning, or underwood, in about ten years produces abundant cuttings; when it is suffered to grow twenty or thirty years, the produce is considerable; it is at this period called brush, or copse-wood. Forests are extensive tracts of wood-land, and afford abundant quantities of timber, which is used for a multitude of purposes. Underwood is used for faggots, poles, hoops, &c. Wood-land is considered to be in a thriving state when the trees upon it are well grown, close, and of a flourishing appearance. Meadow-land is that portion of a farm occupied in the production of grass. Those that are not sown, are called natural meadows, and are mowed once or twice in a year; but they are inferior to those that are cultivated, which, being sown with certain grasses, produce trefoil, sainfoin, lucern, &c. The meadows situated by the sides of rivers, or contiguous to ponds or brooks, yield three times the crop of natural meadows; while those that are situated on the sides of hills, and called grass-lands, produce better grass. The grass of marshes is of the very worst kind. The water-meadows are of great use to the farmer in rearing his cows and other cattle.

Pasture-land is appropriated to the feeding and rearing of cattle; and by many agriculturists is preferred to corn-land, and thought to possess greater advantages. When pasture-land is high, it is termed up-land, and when low, meadow-land; the latter is damp, and often overflowed. Pasture-land with a clayey or cold surface, requires paring and burning to improve it; but when hot and sandy, then large quantities of chalk, lime, marl, or clay must be laid over it.

Marshes are tracts of land occupied by stagnant water, and produce reeds, rushes, and other weeds in abundance. Generally speaking, they may be drained by trenches, and afterwards converted into meadows or gardens, which would soon repay the expenses that attended the improvement of them.

Were we to continue describing the varieties of land, and other farming property, this article would far exceed its proper limits; we will, therefore, close our sketch of agriculture by observing, that extensive lands, which include garden, pasture, meadow, woodland, &c., are

termed parks. They are generally the pride of their possessors, and while exhibiting the picturesque beauties of their natural formation, often display the varied and luxurious taste of those that dwell within them.

CURIOUS AUTOMATA.

THE height to which the ingenuity of man has brought the mechanic arts is truly wonderful; but less so when we consider the capabilities of the ancients in this particular. It is said that ARCHYTAS of TARENTUM, four hundred years before Christ, made a wooden pigeon that could fly; that ARCHIMEDES also made such automata; that REGIOMONTANUS made a wooden eagle, that flew forth from the city, met the emperor, saluted him, and returned; also, that he made an iron fly, which flew out of his hand at a feast, and returned again after flying about the room. In modern times we learn that Dr. HOOK made the model of a flying chariot, capable of supporting itself in the air. Many other automata have been exhibited in the present age, some of which we shall describe hereafter. Some figures have been produced that could write, and perform many other actions in imitation of animals. M. VAUCANSON made a figure that played on the flute; the same gentleman also made a duck which was capable of eating, drinking, and imitating exactly the voice of a natural one; and, what is still more surprising, the food it swallowed was evacuated in a digested state, or considerably altered in the principles of solution: also the wings, viscera, and bones, were formed so as strongly to resemble those of a living duck, and the actions of eating and drinking showed the strongest resemblance, even to the muddling of the water with its bill.

M. LE DROZ, of *La Chaux de Fonds*, in the province of Neuchâtel, has also executed some very curious pieces of mechanism. One was a clock, presented to the king of Spain; which had, among other curiosities, a sheep that imitated the bleating of a natural one, and a dog watching a basket of fruit, that barked and snarled when any one offered to take it away; besides a variety of human figures, exhibiting motions truly surprising.

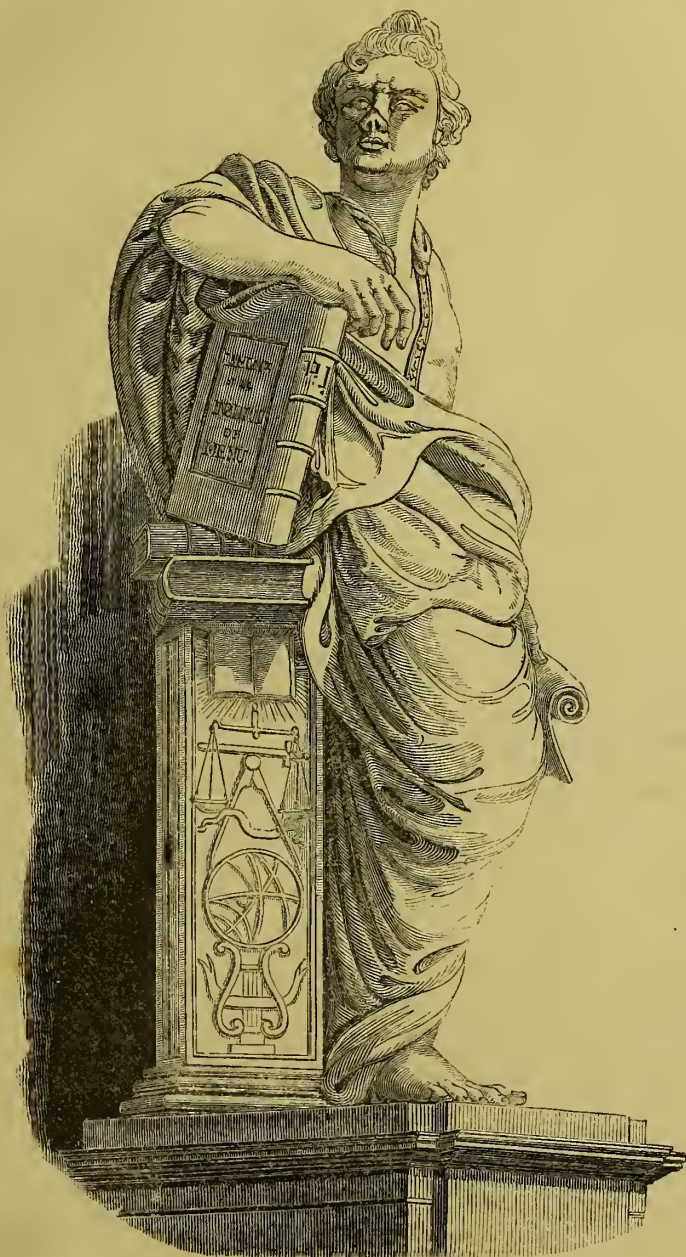
Another automaton of Droz's was the figure of a man, about the natural size, which held in the hand a metal style, and, by touching a spring that released the internal clock-work from its stop, the figure began to draw on a card; and having finished its drawings on the first card, it rested, and then proceeded to draw different subjects on five or six other cards. The first card exhibited elegant portraits of the king and queen, facing each other; and the figure was observed to lift its pencil with the greatest precision, in the transition from one point to another, without making the least slur. Lately we have had the *automaton* chess-player, which was capable of performing all the various movements of the several chess-men. We will speak more at large of these, and such surprising works, in some future number.

PINNOCK'S
GUIDE TO KNOWLEDGE.

No. CLVII.

SATURDAY, FEBRUARY 14, 1835.

PRICE
ONE PENNY.



Sir William Jones's Monument in St Paul's Cathedral.

BIOGRAPHY OF SIR WILLIAM JONES.

THIS eminent individual forms one of the brightest examples of extensive learning, excellence, and virtue, that modern times have produced. He was a most accomplished scholar; distinguished not only for his great literary attainments, but also for the energy and eloquence of his oratorical capabilities. And when we compare the wonderful extent of his labours with the shortness of his life, we are struck with amazement at the great and powerful capacity of his memory and his understanding. They afford us a most indubitable evidence that the difficulties of scientific learning *can* be surmounted by persevering industry; and that the various faculties of

the mind *can* be improved and exalted by exercise, to the comprehension and acquirement of the profoundest and most abstruse studies.

Sir William Jones was born in the year 1746, in the month of September. His infantine years were marked with great penetration and acuteness; and he displayed a powerful thirst for the acquisition of knowledge. He had scarcely reached his third year, when he had the misfortune to lose his father, which, consequently, left him to the entire care and direction of his mother. She, according to the biography of Lord Teignmouth, was a most surprising woman; in fact, we cannot better display

her genius and striking qualities, than by exhibiting to our readers the portrait drawn of her by Sir William Jones himself; these are his words:—"She was virtuous, without blemish; generous, without extravagance; frugal, but not niggardly; cheerful, but not giddy; close, but not sullen; ingenious, but not conceited; of spirit, but not passionate; of her company, cautious; in her friendship, trusty; to her parents, dutiful; and to her husband, ever faithful, loving, and obedient." To this expressive picture, we beg to add, that she possessed an extensive understanding, great knowledge in the sciences, a particular proficiency in *algebra*, and, withal, was well

adapted to be the instructress of her aspiring son. When only four years of age, Sir William Jones could read perfectly well, rapidly, and distinctly: and from that time until his seventh year he applied himself sedulously to the various tasks allotted him by his discerning mother, which rendered him fit to undertake those onerous duties which would be imposed on him at a public school, and to which it was the intention of his instructress soon to send him. Accordingly, on reaching his seventh year, he was placed under the tuition of Dr. Thackeray, at Harrow School, where, for some years, he devoted himself with indefatigable industry, not alone to what was demanded of him by his masters, but to considerably more. His memory, by repeated exercise, had acquired such retentive excellence, that when only twelve years of age, he wrote out from memory, and with great correctness, Shakspeare's play of *The Tempest*; and at that age also composed a dramatic piece, on the story of Meleager, which was acted by his school-fellows. Dr. Bennet informs us, that "great abilities, great particularity of thinking, fondness for writing verses and plays of various kinds, and a degree of integrity and manly courage, distinguished him even at this period."

At seventeen, Mr. Jones left Harrow; and, by the advice of his mother and a few friends, was about to enter into the profession of the law. Dr. Sumner, however, his preceptor, and the successor of Dr. Thackeray, recommended him to proceed in his academical studies. His opinion prevailed; and accordingly Mr. Jones, in 1764, was entered a member of the University of Oxford. Here, by great sedulousness, and a severe course of application, he perfected himself in classic and general literature, while his leisure time was devoted to his favourite study of the oriental languages; thus accumulating, by his unparalleled energies, a most extensive mass of general and particular knowledge. In his twenty-first year, and in addition to what he had before written, he transcribed an Asiatic manuscript on Egypt and the Nile, copied the keys of the Chinese language, and wrote some Commentaries on Asiatic poetry, in imitation of Dr. Lowth's *Selections* at Oxford, on the Sacred Poetry of the Hebrews. About this period (1768) we may fix the commencement of his talented career, which led to his future prosperity and great fame. The king of Denmark was, in this year, upon a visit to this country; and having expressed a wish to the secretary of state to have an eastern manuscript which he had with him, containing the life of Nadir Shah, translated into French, Mr. Jones was selected as the man best capable of executing so arduous a task. He, however, at first declined; but on a second application, undertook it. It was a very tedious, and by no means a pleasant, undertaking, and twelve months expired before it was completed. On its being presented to the Danish sovereign, the only remuneration that monarch gave to Mr. Jones was a *diploma*, constituting him a member of the Royal Society of Copenhagen, and a *recommendation* to the favour and benevolence of his own sovereign—a recommendation, however, couched in the very strongest terms, yet both of which availed him but little. Shortly after this, Mr. Jones transcribed a grammar of the Persian language, which he had composed a few years before for the use of a school-fellow about to proceed to India.

When arrived at the twenty-fourth year of his age, Mr. Jones revolved in his mind the advice proffered him by his mother, of directing his pursuits to the acquisition

of the law; and after some little reflection, came to the determination of prosecuting his energies to the attainment of that learned profession. Accordingly, in 1770, he was admitted into the Temple, and applied himself very laboriously to become qualified for sustaining an eminent position at the bar. During this period he completed his terms at Oxford: in the Easter term of 1773 he took his degree of *Master of Arts*; and in the year following was admitted to the bar. Towards the close of 1776 his talent, and the favour of his illustrious friend Earl Bathurst, procured him an appointment to a commissionership of bankrupts, the duties of which office he fulfilled both with credit to himself, and with justice to each party that came before him. All the leisure time he could obtain he devoted to his favourite reading of classic and oriental literature; and in 1778 he published his celebrated translation of the "*Orations of Isæus, in Causes concerning the Succession to Property at Athens*;" with a Prefatory Discourse, Notes, historical and critical, and a Commentary;—a work that obtained considerable applause from every one capable of forming some judgment upon classical learning.

After the lapse of two years, a vacancy occurring on the bench of Fort William, in Bengal, he was led to aspire to its possession through the kindness of Lord North: but his political opinions being somewhat opposite to those of the administration then in power, he had but little prospect of success. Keeping in view, however, this object of his ambition, among the numerous offsprings of his industry and his imagination, he undertook the translation of an Arabian poem on the Mahomedan law of succession to the property of intestates. Such a poem, it may be well imagined, could have few charms to delight the fancy, and not many more that would remunerate the time and labour spent upon it. Yet, the prospect of a judge's seat in India overruled these objections, which were, to a mind of his energies, mere trifles, and led him to suppose he could derive information respecting the Mahomedan laws, in addition to what he already possessed. At length, on the succession of the Shelburne administration, whose views of political affairs were more consonant with those entertained by Mr. Jones than those of their predecessors, and through the particular interest of Lord Ashburton, he obtained possession of the object he had so long and so eagerly aspired after; and in March, 1783, was appointed a judge of the supreme court of judicature at Fort William. He received the honour of knighthood on this occasion; and in the following month, so eager was he in this pursuit, he took his departure for India. After a voyage of about five months, which were spent in studious preparation for the office he was just upon entering, he arrived at Calcutta, where he was eagerly welcomed by all who were desirous of having a magistrate of probity and independence, possessing the greatest knowledge of oriental literature, and in the full vigour of life. Soon after his arrival, considering the study of the ancient Sanscrit language would be of the greatest service to him in the discharge of his judiciary functions, he commenced learning it, and very soon became competent to examine the quotations and authorities of the professors of the Hindoo law, and discover their errors and misrepresentations: and was also further enabled to gratify his curiosity by looking into the religion and literature of India to a greater depth, and with more satisfactory conclusions. Having made great progress in his attainment of the Sanscrit language, he

formed the design of compiling a digest of the Hindoo and Mahomedan laws; and, meeting with liberal co-operation from the governor-general, Lord Cornwallis, in this great undertaking, he set about it with much spirit. At intervals he produced translations of several Indian works, by way of diversion from his arduous task: and carried on an extensive correspondence with his learned friends in Europe, in which he exhibited his various pursuits, and showed how greatly his anxiety extended to every branch of science.

In 1793, Lady Jones, finding it impossible to continue longer in India, from the effect of the climate on her health, with the advice of her husband, took her departure for this country. But she left not Calcutta without exacting from Sir William Jones a promise of following her soon after; which he engaged to do in about two years' time: thinking by that period to have completed the digest of the Indian laws which he had commenced, and which he found the situation he enjoyed promoted to the greatest advantage. A very little while had passed away, however, when symptoms of dangerous disease manifested themselves, and quickly brought this great man to the grave. "On the evening of the 20th of April, or nearly about that date, after a prolonged walk, Sir William Jones complained of aguish symptoms, and mentioned his intention of taking some medicine, repeating jocularly an old proverb, 'That an ague in the spring, is medicine for a king.' The disorder was soon discovered to be a complaint common in Bengal, — an inflammation in the liver. A physician, after two or three days, was called in to his assistance, but the disease had then advanced too far to yield to the efficacy of the medicines usually prescribed, and they were administered in vain. The progress of the complaint was extremely rapid, and terminated fatally on the 27th of April, 1794. He died in a posture of meditation, and, apparently, without a pain or groan. In his last moments, his mind derived consolation from those sources where he had been in the habit of seeking it, and where alone, on a death-bed, it ever can be found."

Thus ended the life of a man who must ever be the subject of admiration, although it can happen to the lot of few to equal, and, perhaps, of none to excel him. It was his peculiar felicity to have enjoyed a life which appears to have been the best contrived for forwarding his views, and for accomplishing his character, though it was comparatively brief. He died at the age of forty-seven.

In 1799 his works were published in six quarto volumes, and have been since reprinted in thirteen volumes, octavo, with the addition of his *Life*, by Lord Teignmouth, which first appeared in 1804. Among the public honours to his memory, are a monument by Flaxman, at Oxford, erected at the expense of Lady Jones; a monument in St. Paul's cathedral, and a statue at Bengal, both set up at the expense of the Hon. East India Company.

This unexampled individual had perfected himself in eight different languages, and had acquired considerable knowledge in nearly twenty others. The several works that emanated from his pen are truly numerous; indeed, we cannot conclude this article more appropriately than by quoting these words of his biographer:—"A mere catalogue of the writings of Sir William Jones, would show the extent and variety of his erudition; a perusal of them will prove that it was no less deep than miscellaneous. Whatever topic he discusses, his ideas flow with ease and perspicuity; his style is always clear and

polished; animated and forcible, when his subject requires it. His philological, botanical, philosophical, and chronological disquisitions, his historical researches, and even his Persian grammar, whilst they fix the curiosity and attention of the reader, by the novelty, depth, or importance of the knowledge displayed in them, always delight by elegance of diction. His compositions are never dry, tedious, nor disgusting; and literature and science came from his hands adorned with all their grace and beauty. No writer, perhaps, ever displayed so much learning, with so little affectation of it." As to his private and social virtues, "the independence of his integrity, his probity, and his humanity, and also his universal philanthropy and benevolence, are acknowledged by all who knew him; and in every domestic relation, as a son, a brother, and a husband, he was attentive to every dictate of love, and to every obligation of duty." And, joining in the sentiment of Dr. Parr, "It is happy for us this man was born."

USE OF LEAD AMONG THE ANCIENTS.

It is pretty evident that both lead and tin were employed in extremely remote ages in the fabrication of arms, and, above all, in the ornamental parts of them. Homer makes scarcely any mention of this metal, although, in the heroic ages, they no doubt understood how to distinguish pewter or tin from lead; yet it does not appear that the points of difference were very clearly defined, since Homer speaks of each indifferently under the same appellation. Homer also alludes to the practice of putting leaden balls at the end of fishing lines, and, without doubt, they were acquainted with the method of flattening lead, so flexible, so facile is it in its nature. Cayles has demonstrated that this use of the metal was known to the ancient Romans. It was likewise the custom to write on lead, which mounts also into very great antiquity. Frontinus and Dio Cassius assure us that the consul Hirtius, when besieged in Modena, wrote upon a leaf of lead, respecting his situation, to Decius Brutus, who replied by the same means. Pausanias speaks of certain books of Hesiod written upon sheets of lead; and, if we may believe Pliny, even public acts were consigned to volumes or leaves of the same material.

WHEN we begin to pass out of our minority, and to judge for ourselves on matters of civil and religious life, we ought to pay very great deference to the sentiments of our parents, who, in the time of our minority, were our natural guides and directors in these matters. So, in matters of science, an ignorant and inexperienced youth should pay great deference to the opinions of his instructors; and though he may justly suspend his judgment in matters which his tutors dictate till he perceives sufficient evidence for them, yet neither parents nor tutors should be directly opposed without great and most evident reasons, such as constrain the understanding or conscience of those concerned.



THE BIRCH TREE.

[*Betula alba.*]

"Was every faltering tongue of man,
 Almighty Father! silent in thy praise,
 Thy works themselves would raise a general voice;
 E'en in the depth of solitary woods,
 By human foot untrod, proclaim thy power."—POPE.

Our young friends can scarcely have failed to notice and admire a tree which decorates nearly every green lane in the kingdom, and which forces itself upon the attention of the most indifferent by the extreme beauty of its general form, the elegant sweep of its drooping branches, and the whiteness of its bark. This is the birch tree, whose twigs, in the by-gone days of corporeal punishment, were, in the shape of an avenging rod, as much the terror of the indolent, as they are now the admiration of the industrious, on a well-spent holiday. Shenstone has thus described the feelings of the former:—

"For not a wind might curl the leaves that blew;
 And as they look'd, they found their horror grew,
 And shaped it into rods, and tingled at the view."

The birch, as an object of beauty, is at this season of the year seen to greater advantage than on any other, and well merits the appellation of Coleridge, who calls it "the lady of the woods." We have often thought the gloominess of the winter months amply repaid by the vision of grace which this tree presents. The branches terminate in an innumerable number of the most delicately formed twigs, which ramify into smaller ones in a way so gentle, that

the change is hardly perceivable. These all hang in a pensile manner, and are so susceptible of motion, that they will sometimes swing in a breath of air which scarcely makes a dew-drop glitter: but when the wind bestirs itself, they wave to and fro in a series of undulations, which, even to an old admirer, is perfectly fascinating.

"Then the fond eye in sweet distraction strays,
Most pleas'd when most it knows not where to gaze."

A party of tomtits may be sometimes observed, on such occasions, clinging to the end of twigs in search of insects, and swinging merrily in the breeze.

To enable our readers to realize these tranquil pleasures for themselves, we have deviated, in a slight degree, from our plan, and present this tree out of its proper season.

The common birch belongs to the natural family of *Amentaceæ*, or those trees which bear catkins (in Latin, *Amenta*). These comprise our principal forest trees, as the oak, beech, sweet chestnut, alder, &c., and form the most noble and valuable of all the vegetable tribes. We would advise our little friends to gather successively, as they appear, the catkins of these trees, to pull them to pieces, draw their parts, compare one sort with the other, and write down the differences; and by-and-by we promise to help them with an article especially on the subject.

The tree we are describing grows in luxuriant specimens to the height of forty feet, and is found, together with its allied species, in the coldest and most inhospitable regions of the north. The dwarf birch is the last tree observed in approaching the Arctic Circle;

" ————— Where
Vast regions, dreary, bleak, and bare!
There, on an icy mountain's height,
Seen only by the moon's pale light,
Stern Winter rears his giant form;
His robe a mist—his life a storm."

In these solitudes the birch affords a welcome shelter to a number of birds who would otherwise perish, and is useful to the scantily-furnished inhabitants in a variety of ways, which we shall presently describe.

The ancient inhabitants of Europe, and of Britain in particular, constructed their frail canoes of the twigs and bark of the birch; and they are still used for the same purpose by the North American Indians. In Russia and Poland the same substances are used to thatch houses, and build fences and partitions, and split into fibres, are plaited into durable mats and ropes. The timber is used in all countries for a great variety of turners' ware, packing-cases, posts, gateways, shepherds' hurdles, and brooms for the housewife. The thin bark, which peels off in the spring season, was used by the ancients in place of paper: it must have been, however, but an inconvenient substitute. The books which Numa composed about 700 years before Christ were written on the bark, and were said to have been found in his tomb after a lapse of 400 years. The bark has also been used by the poor inhabitants of Sweden to mingle with their bread corn. The wood makes the best charcoal, and is largely used in the manufacture of gunpowder. The sap has a sugary quality, and is often made by country people into a light and wholesome wine. But the most important uses to which the tree is applied, occurs in the Scottish Highlands. In the *Library of Entertaining Knowledge (Timber Trees)*, it is said of those parts, "where the pine is not to be had,"

to be "a timber for all uses." "The stronger stems are the rafters of the cabins; wattles of the boughs are the walls and the door; even the chests and the boxes are of this rude basket-work. To the Highlander it forms his spade, his plough, and, if he happen to have one, his cart and his harness; and when other materials are used, the cordage is still withies of twisted birch."

SEPULCHRAL RITES OF DIFFERENT NATIONS.

THE "burial of the dead" has been a practice handed down to us from the remotest antiquity; and it seems indebted for its origin to the ease and facility with which a decomposed body, and the noxious effluvia that attended it, were got rid of. We learn from the Scriptures, that the patriarchs and their descendants, and many nations of antiquity, disposed of their dead bodies by burying them in the earth; thus in Genesis xxiii. 6,—"In the choice of our sepulchres, bury thy dead; none of us shall withhold from thee his sepulchre, but that thou mayest bury thy dead." But as civilization and luxury advanced, and grew up in companionship with superstition, the last sad offices of humanity which were bestowed upon the remains of a departed being, and which were accustomed to be as simple and as unostentatious as they were silent and impressive, became attended with strange and inconsistent circumstances, and marked with great variety. In addition to the practice of burial, the custom of burning dead bodies a long time prevailed, and is even continued to this day in a few of the eastern and barbarous nations. It was usual, after the bodies were burned, to collect the ashes with pious care into an urn, which generally was deposited in a tomb or sepulchre. The ancient Greeks and Romans sometimes buried their dead, and sometimes burned them. They were very particular in their funeral obsequies, and entertained the strange opinion, that while the body remained without sepulture, the souls of the departed were denied admission into the "Elysian Groves."

The depositories of the ashes, after burning with the vase or urn that contained them, were, as we just observed, generally tombs constructed for the purpose, and which the ancient Greeks usually erected without the walls of their cities, excepting, however, those constructed for the founders of the place, or for heroes. Clumps of trees, of different sorts, usually surrounded these sepulchres, which, in other respects, were mostly marked by a stunted pillar, on which the epitaph was engraven. To these spots, consecrated by sorrow and affection, the bereaved mourners often repaired, scattering oil and other essences over the tombs of their departed relatives or friends.

Several tombs, enclosing the dead bodies of some of the ancient inhabitants of Campania, have been discovered, and in which were found the beautiful Grecian vases, improperly called the *Etruscan vases*. The tombs were formed by an enclosure of cut stones, and covered with a kind of roof of flag-stones, shelving on both sides. The dead body was stretched on the ground, the feet towards the entrance of the sepulchre, and the head against the wall, from which, by bronze nails, were suspended vases made of *terra-cotta*,* whilst others of a similar kind were disposed

* Terra-cotta, Latin,—baked earth.

round the body. Many sepulchral grottoes, scooped in a shallow manner out of the solid rock, and into various shapes, have been also discovered in the plains of Etruria; and the interiors of some of them have been found ornamented with paintings.

The Romans, in their sepulchral rites, were often excessively extravagant, particularly upon the demise of kings, princes, or great men. They would construct magnificent monuments, sepulchral arches, mausolea,* &c. After constructing a tomb, they would often celebrate there the funeral rites with all their ordinary paraphernalia, yet without depositing the body: this receptacle, however, was, in such case, termed a *cenotaph*. The pyramid of Cestius, at Rome, constructed of Parian marble, and which contained a chamber ornamented with beautiful paintings, was the tomb of an individual surnamed Cestius, one of the *Septemviri Epulones*. Pope Alexander VII. rescued this pyramid from the ruins under which it had been buried, in order to re-establish it in all its splendour. After the decline of the arts, however, this species of architecture was much neglected, the tombs becoming simply masses of large stones, upon which were engraved rude effigies of the deceased, and inscriptions stating his age, and the circumstances of his death, &c.

Tombs were, at one time, among the ancients, constructed of a kind of stone, which, from its caustic and corroding qualities, was called *sarcophagus*, from two Greek words, *sarx*, flesh, and *phago*, to eat. It is said to have perfectly consumed the flesh of human bodies buried in it, in the space of forty days. This property, for which it was greatly celebrated, is mentioned by all the ancient naturalists; besides which, it had this other singular quality attached to it; namely, that of turning into stone whatever was deposited in vessels made of it. This latter quality, however, is recorded only by Mutianus, Theophrastus, and Pliny.

In later times, the term *sarcophagus* has, by no means, been confined to a particular kind of stone: indeed, its more generally accepted meaning is a sort of coffin or grave itself. This kind of sepulchral chest was usually made either of stone, of marble, or of porphyry. The Greeks, also, sometimes employed a hard wood, and such as would resist humidity; namely, oak, cedar, or cypress. Occasionally, they used terra-cotta, and even metal.

The form of these *sarcophagi* approached very nearly to the shape of our coffins; but they were very highly ornamented, often having either the figure of the deceased, some moral or allegorical subject, or an important event of his life, sculptured on them.

Depositing bodies in caves, was a system adopted by the ancient Phenicians, and propagated by them wherever they carried their colonization.

According to many antiquarians, *tumuli*, or *barrows*, were accounted the most ancient and universal kind of sepulchral tombs or monuments. They are composed of heaps of stones, or are merely mounds of earth, and are dispersed over every part of the globe, and of various dimensions. Some of them are very large, and can only have been produced by great labour. It is generally

supposed that they were intended to perpetuate the memory of favourite chiefs and heroes; which is an opinion deduced from the circumstance, of finding in many that have been opened the remains of human skeletons and oftentimes, in addition, implements of war. This mode of burial was much adopted by the ancient Britons, and several of their barrows have been examined. It appears that they were in the habit both of burning dead bodies, and of burying them entire. The captives, slaves, and animals, destined to appease the *manes* of the deceased chieftain, or to accompany his departed spirit, were killed and burned on the spot, and a barrow was raised over their ashes, near the summit of which the body of the chieftain was buried entire. The urns that have been found, are imagined to have contained ointments or other valuable articles of the deceased chief.

(To be continued.)

ANIMAL SOCIETY.

It is wonderful to observe the great distinction that exists in the habits and characters of various animals; some are fond of a *solitary* life, living away from the rest of their species; others, on the contrary, partial to the *sociability* of numbers, group together, and enjoy all the numerous comforts that seem denied to the isolated individual. These groups, or *societies*, may be divided into two general classes, viz. into societies of *dependent* animals, and into those of *independent* animals. The individuals of the former class pursue the various offices and functions of their nature in concert with others of the same species, and for the general welfare of all the members of that particular society; while the individuals of the other class, though labouring in company and at the same task, apply themselves each one for his individual comfort. To the former belong a few species of worms and caterpillars, the bees, wasps, drones, ants, beavers, &c.; and to the latter belong several species of domestic birds, birds of passage, those species of fishes that swim in shoals, large and small cattle, and the several kinds of insects that collect themselves together in one place, such as vine-fretters, gall insects, &c.

In societies of dependent beings, every individual labours for the public good; whilst in societies of the other class, which are formed of the union of several individuals, which their necessities, or mutual advantages, bring together into the same place, every individual acts principally for himself, though in particular circumstances all the individuals concur in promoting the common safety or interest; such, for instance, as the following:—

A drove of oxen grazing in a meadow, on the appearance of a wolf, immediately form themselves into a battalion, and present their horns to the enemy. He, disconcerted at this warlike movement, turns upon his heels, and retires. The oxen, when satisfied as to his distance from them, resume their occupation.

Hinds and young stags, during the winter season, assemble in herds, to warm themselves by their breath. On the approach of spring, the hinds separate themselves from the young harts, who continue together, fond of roving in company, and so much, indeed, as to be only parted by necessity.

Sheep, when alarmed, huddle themselves together for protection; and, when exposed in an open plain, or down, to the sultry heat of summer, they also group together,

* *Mausolea* is the plural of the Latin word, *Mausoleum*. It originated from MAUSOLUS, a king of Caria, who, having died, his wife Artemisia, was so disconsolate, that she drank upon his ashes, and perpetuated his memory by the erection of a most magnificent monument, which became so famous as to be esteemed the seventh wonder of the world, and to give, ever after, a general name to all superb sepulchres.

and so closely, that their heads touch each other; these they hold towards the ground to snuff up the cooler air that comes from beneath them.

Wild ducks, which are accustomed to change their climate, in their flight, range themselves into the form of a wedge, or like a V, that they may cut their way through the air with the greater facility. The duck that takes the lead at the extreme point, after a certain time is relieved by another; and this one, in his turn, by a third, and so on. Thus each one of the flock is made to endure a certain portion of the fatigue which the arduous situation of leader creates.

Vine-fretters (*aphides*) assemble in great numbers on plants, but of the advantages that accrue to them of this kind of society our knowledge is somewhat imperfect; yet we may reasonably conjecture, that the reiterated punctures of the greatest number of these insects, draw proportionably the greatest quantity of nutritious juices from that part of the plant on which they are fixed. This appears more evident from the formation of *bladders* on the leaves of the elm tree, which are, in fact, tumours occasioned by the punctures of a number of vine-fretters. When they are opened, they are found to be filled with them. At the same time that each of these insects extracts the juice which contributes to its growth, it also promotes the production of the bladder, which is to provide all of them with lodging and sustenance.

We are aware that animals, to whom the company of their own kind is agreeable and useful, have become adapted to this kind of society by the hand of Nature. Yet the spirit of society is not altogether limited to individuals of the same species, but extends, in a certain degree, to those of different species. Indeed, were it not so, how many embarrassments and inconveniences would accompany the various services we derive from domesticated animals! Perhaps the custom of repeatedly seeing each other, of eating their meals in common, and of reposing under the same roof, accounts for the apparently natural disposition of domestic animals to live in society. If it does not account for it, it confirms it; and the various circumstances and connexions that result from it, become, in consequence, so much the stronger, as they are exercised the earlier and nearer to their birth, or the more remotely from it. Thus may animals that are not appointed to live together from natural inclination, yet form a kind of society, showing, at the same time, that the propensity each of them derives from nature to live with those of a similar kind, is not only susceptible of modification and extension, but is even subject to it.

Every individual knows such as are of his kind; those of the same society likewise know them. It is observable, that if strange fowls are brought into a poultry-yard, those of the place will attack and persecute them till time and circumstances have made them members of their society.

The external appearance of animals also exhibits various characters, by which individuals of the same society may know each other, and distinguish strangers. But, in addition to these physical characters, there are others of which the animals of a class, particularly of the class we have just spoken of, are capable of judging; such, for instance, as the air, posture, gait, &c. The individuals of that species which are not yet become familiar in their new habitation, seem fearful or embarrassed; this fear, or embarrassment, detects them, and excites and encourages others to attack them.

The society of domestic animals affords numerous instances of instruction and amusement, of which we give one or two. Those objects which seem to us to be perfectly alike, have often real differences between them, which we do not perceive; and this generally arises, either because their smallness conceals them from our sight, or because they are of such a nature as not to attract our attention. A young lamb will distinguish her mother from among three or four hundred sheep, although no sensible difference between them is apparent: the little lamb, being most interested in the discovery of these slight differences, actually and readily discerns them. The bleating of one sheep is very different from that of another, and it is a difference which, though we are often incapable of distinguishing, nevertheless soon strikes the ear of the attentive lamb. Lastly, the dog, by his acute sense of smelling, knows his master in the midst of a great multitude.

These, and such other instances, are sufficiently explained by referring to animal *instinct*, without having recourse to any philosophic or latent principles, and we shall conclude this article by observing that in some early number we shall again recur to this interesting subject of *Animal Society*.

METHOD OF CUTTING GLASS.—If a tube, or goblet, or other round glass body, is to be cut, a line should be marked with a gun-flint having a sharp angle, an agate, a diamond, or a file, exactly on the place where it is required. A long thread, covered with sulphur, should then be passed two or three times round the circular line, and be inflamed and burnt; when the glass is well heated, throw some drops of cold water on it, and the piece will separate in an exact manner, as if it had been cut with scissors. It is by this means that glasses are cut circularly into thin bands, which may either be separated from, or repose upon, each other at pleasure, in the manner of a spring.

ORDER AND REGULARITY.—There cannot be more important requisites to successful trade, than order and method. Regularity diminishes the labour, and proportionally increases the profit of business. It brings the most multifarious employments readily and easily within the circle of our time, and that without any burden to the mind. It reduces to a narrow and practical compass, avocations of the most extended nature, and enables us at all times to have a perfect and an immediate knowledge of our affairs.

TO CORRESPONDENTS.

To our Correspondent of Warrington, we beg to answer in the affirmative.

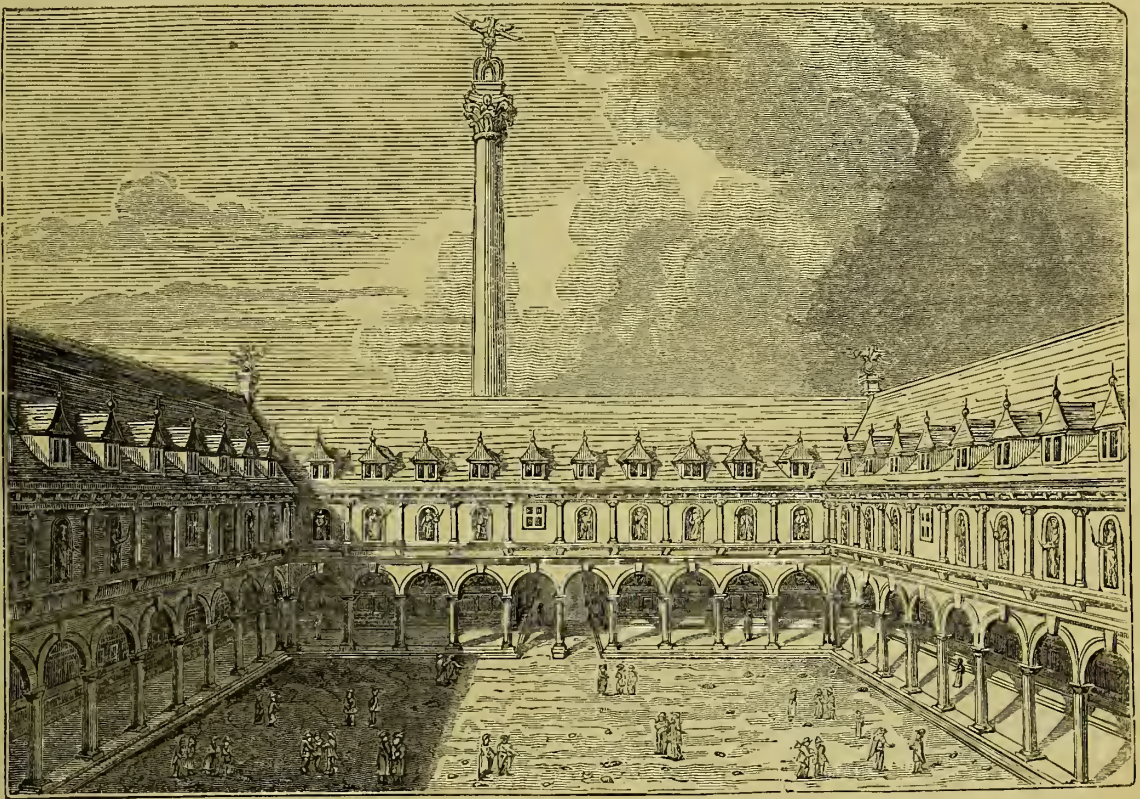
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PINNOCK'S
GUIDE TO KNOWLEDGE.

No. CLXII.

SATURDAY, MARCH 14, 1835.

PRICE
ONE PENNY



INTERIOR OF THE OLD ROYAL EXCHANGE.

HAVING given a view, with some account, of the present Royal Exchange in a former number of our Work, we here present our readers with a representation of the building which preceded that structure, and which was destroyed in the Fire of London.

Meetings of merchants for commercial purposes at some appointed spot must, from their necessity and nature, have existed in all cities from the remotest times. The Athenians had, in the Piræus, a place called Dailma, from the dailma, or sample, of their goods, which strange merchants carried about in a little dish, and this place was always full of strangers. The Roman *Basilicæ* were Exchanges for the merchants to meet in, and existed in the most considerable cities of the empire. That which seems to have been built at Rome 493 years before Christ, under the consulate of Appius Claudius and Publius Servilius, called *Collegium Mercatorum*, (and which was partly existing in the modern Roman *Loggia*, or as it is more usually called, the "Place of St. George,") is thought to have not strictly resembled the Exchanges now in use. In the middle age these meeting-places were called *Fundæ*,

and Bernard de Breydenbach, in his *Itinerary*, speaking of Alexandria, says, "the *Fonticus* is a large house where traders, &c. keep their goods, and hold a market."

Exchanges, in more modern times, are public places in the largest cities, wherein the merchants, negotiants, agents, bankers, brokers, interpreters, and other persons concerned in commerce, meet on certain days, and at certain times, to confer and treat together of matters relating to exchanges, remittances, payments, adventures, assurances, freightments, and other mercantile negotiations, both by sea and land: and these assemblies are held with so much exactness, and merchants and negotiants are so indispensably required to attend at them, that a person's absence alone subjects him to a suspicion of failure or bankruptcy.

In Flanders, Holland, and several cities of France, these places are called *Bourses*; at Paris and Lyons, *Places de Change*; and in the Hanse towns, *Colleges of Merchants*. The most considerable Exchanges in Europe are that of Amsterdam, and that of London, called the Royal Exchange. The former is a large building, 230 feet

long, and 130 broad; round which runs a peristyle, or portico, 20 feet wide. The columns of the peristyle, amounting to 46, are numbered, for the convenience of finding persons. The Exchange at Antwerp was little inferior, till a variety of circumstances concurred to effect its ruin, and to transfer its trade to Amsterdam. The era of this important event in commercial history is about the year 1585.

The Royal Exchange of London, in compliance with the usage abroad, was at first named Britain's Bourse; but on Queen Elizabeth's visiting it afterwards, it was in a solemn manner, by herald with sound of trumpet, proclaimed in the presence, and, by the order of that princess, the Royal Exchange.

The first hint of building a bourse is said, by Strype, to have been given to Sir Thomas Gresham, its founder, by Richard Clough, a Welchman, afterwards knighted, and originally his servant, and who in the year 1561 was, for his merit and industry, advanced by Sir Thomas to be his correspondent and agent at the then emporium of Europe, Antwerp. "Clough wrote to his master to blame the city of London for the want of so necessary a thing; bluntly telling him, that they studied nothing else but their own private profit; that they were content to walk about in the rain more like pedlars than merchants; and that there

was no kind of people but what had their place to transact business in in other countries." Thus stimulated, Sir Thomas, it is said, applied to the city authorities, who, having purchased and removed some tenements on the site of the intended new building, gave him possession of the ground plot; and on June 7, 1561, he laid the foundation;—finished the structure in November, 1567;—and in January, 1570, Queen Elizabeth, as stated, paid Sir Thomas a visit, and after dining with him at his house in Broad-street, afterwards Gresham College, she went to the new bourse, and inspecting every part of it, named it, with the ceremonies which have been described.

Stow, and his editor Strype, give us some entertaining minutiae in addition to what is above stated.

For the purpose of preparing the site, the former acquaints us that three alleys were destroyed which antiently stood on the spot, viz. *Swan-alley*, opening into Cornhill from Broad-street ward; *New-alley*, passing through out of Cornhill into Broad-street ward, opposite St. Bartholomew-lane; and *St. Christopher's-alley*, opening into Broad-street ward, and into St. Christopher's parish: that fourscore "households" were removed to clear the spot, which cost the city 253*l.*, (or, as they state in their answer to a supplication of Lady Gresham, 4000*l.*), and which were sold for 478*l.* to such persons as would pull

them down, and take away the materials; and that the ground plot having been made plain at the "city's charges," possession given by certain aldermen to Sir Thomas, and the foundation laid as described, every one of the aldermen, and others assembled, laid down a piece of gold, which the workmen took up, and immediately began the work in high spirits at the bounty they had received.

In describing the queen's procession, the same authorities state, that Her Majesty, with her nobility, came from her house in the Strand, called Somerset House, and entered the city by Temple bar, through Fleet-street, proceeded through Cheap, and so by the north side of the bourse, through Theadneedle-street, to Gresham House; whence, returning after dinner through Cornhill, she entered the bourse on the south side, and after she had viewed every part thereof above the ground, especially the *Pawn*, which was richly furnished with all sorts of the finest wares in the city, she caused it to be named, &c.

A nearly cotemporary drama,—entitled, "If you know not me, you know nobody: with the *Building of the Royal Exchange*,"—gives a most particular and amusing account to the above effect, and adds various minutiae not to be found elsewhere.

It is stated in this drama, that the open spot at which the merchants assembled, under all the disadvantages of being exposed to the weather, was Lombard-street, (most likely in the Woolchurch-haw, or yard, near St. Mary Woolnoth church.) This, in the play, is recognized by the familiar name of the "*Lumbard*." Thus Sir Thomas Gresham, one of the characters, speaking to Hobson, another wealthy citizen, respecting a dispute he had about the sale of Osterley park, in Middlesex, says:—

The Lady Ramsay hath, by earnest suit,
Procur'd the reverend preacher, Doctor Newell,
To compromise and end our difference:
The place, the *Lumbard*; ten of the clock the houre
Appointed for the hearing of our cause.

And again,—

Lady Ramsay (speaking to Dr. Newell.)
I thank you heartily; and by the hour, I know
They will be here presently on the *Lumbard*,
—And see! Sir Thomas is come.

(Enter Sir Thomas Ramsay.)

D. Newell. Good day to Sir Thomas Ramsay.
Ramsay. M. Deane of Paul's, as much to you,
'Tis strange to see you here in LUMBER-STREET,
This place of traffike, whereon merchants meet.

The wretched nature of the accommodation here in bad weather is pointed out in the following lines, and made the first cause of building the Royal Exchange. The two merchants, Gresham and Ramsay, are supposed to be talking on this spot of meeting, in company with old Hudson, when they are overtaken by a storm.

Gresham. Now passion o' me Sir Thomas, a cruell storme!
An' we stay long we shall be wet to th' skinne; (Storm.)
I doe not lik't, nay it angers me,
That such a famous city as this is,
Wherein so many gallant merchants are,
Has not a place to meet in, but in this,
Where every showre of raine must trouble them;
—I cannot tell—but if I live—(Let's step to the *Pope's Head*,
We shall be dripping wet if we stay here.)
—I'll have a mansion built, and such a rooffe
That merchants and their wives, friends, and their friends,
Shall walke vnderneath it as now in Pawles.

—What day of the month is this?

Hobson. Day! Master Gresham; let me see:
I tooke a fellowes word for twenty pound—
The tenth of March,—the tenth of March!

Gresh. The tenth of March! well, if I live,
I'll raise a worke, shall make our merchants say,
'Twas a good showre that fell vpon that day.'

In pursuance of his determination, Sir Thomas is described as having obtained from the corporation of London a grant of ground for the intended building.

In detailing to the lord mayor and sheriffs the objects and manner of the new foundation, we are not only furnished with an account perfectly agreeing with history, but learn a number of curious particulars unknown, unless through this medium.

The mayor, Sir Thomas Ramsay, informs Gresham that the common-council had determined on a site in the finest part of the city, *Cornhill*, the ground and houses whereof they had purchased for 3523*l.*; that the latter, amounting to fourscore houses, had been sold, agreeably to their order, for 478*l.*, the plot made plain at the city's charge; and that himself and the aldermen had now come to give him possession of it, thereon to build, at his own cost, a *BOURSE for merchants to assemble in*. Gresham, who has his workmen with their tools ready in attendance, on this, invites the company, with Dean Newell at their head, to accompany him, and the whole walk in procession to Cornhill. He calls for some bricks,—(it is to be noted that the first Royal Exchange was built of brick, and not of stone, as afterwards),—places a sovereign on one of them, the rest present doing the like, as an encouragement to the workmen; and then, explaining to Dean Newell the *plan*, which the latter is looking at, gives a complete description of the structure as first erected, in the following dialogue:—

D. Newell. Is this the plot, Sir, of your worke in hand?

Gresham. The whole plot both of forme and fashion.

D. New. In sooth it will be a goodly edifice,
Much art appears in it: in all my time
I have not seen a worke of this neat forme:
What is this *vaultage* for, that's fashion'd here?

Gresh. Stowage for merchants' wares, and strangers' goods,
As either by exchange, or other wayes, are vendible.

D. New. Here's a *middle-round*, and a faire space,
The round is greater, and the space
Seems open:—your conceit for that?

Gresh. The grates give light vnto the cellarage,
Vpon the which I'll have my friends to walke
When heaven gives comfortable raine vnto the earth:
For that I will have covered.

D. New. So it appears.

Gresh. This space that hides not heaven from us,
Shall be so still; my reason is,
There's summer's heat, as well as winter's cold:
And I allow, and here's my reason for't
'Tis better to be bleak'd by winter's breath,
Than to be stifled vp with summer's heat:
In cold weather walke dry and thicke together,
And every honest man warme one another:
In summer, then, when too much heat offends,
Take ayre, a God's name, merchants or my friends.

D. New. And what of this part that is over head?

Gresh. M. Deane in this
There is more ware than in all the rest:
Here, like a parish for good citizens,
And their fayre wives to dwell in, I'll have shops
Where ev'ry day they shall become themselves
In neat attire, that when our courtiers
Come in traines, to trace old Gresham's Bourse,
They shall have such a girdle of chaste eyes,
And such a globe of beauty round about,
Ladies shall blush to turne their vizards off,
And courtiers swear they ly'd when they did scoffe.

D. New. Kind Mr. Gresham! this same worke of yours
Will be a tombe for you after your death:
A benefit to tradesmen: and a place
Where merchants meet, their trafficke to maintaine,
Where neyther cold shall hurt them, heat, nor raine.

Sir Thomas Gresham died in 1562. By his will, dated 20 May, 17 of Elizabeth, and printed 1565, "the building called the *ROYAL EXCHANGE*, and all the pawns and

shops, cellars, vaults, messuages, tenements, and other hereditaments, parcell, or adjoining to the same ;" after the determination of the particular uses, estates, and interest for life, and intail thereof, limited in a certain deed therein mentioned, is left jointly to the Corporation of London, and the Company of Mercers, for ever, upon trust that they should appoint and maintain four lecturers to read lectures of divinity, astronomy, music, and geometry, in his dwelling house in Broad-street, afterwards Gresham College, and on the site whereof stands the present Excise Office.

The south front of the Royal Exchange, as it was completed by Sir Thomas Gresham, had a double high pointed roof, enlightened by rows of attic-windows, surmounted, as well as the angles of the roofs, with grasshoppers, (the founder's crest.) A lofty square tower, crowned with a vane and grasshopper, rose a little east of the grand entrance, having open galleries to two of its stories, and being ornamented in front with a sun-dial, and a statue of Sir Thomas. The entrance itself receded from the front, and consisted of a double Ionic arch, beneath panels of the royal arms, and those of the founder ; a double tier of large windows, and a row of shops on the basement story, completed the south front. The style of architecture was not unpleasing, but of the mongrel character, usually termed the Elizabethan ; and though the eye might at first be struck with a general resemblance in the ancient to the present edifice, a more minute inspection will show its difference, as well as great inferiority,—an inferiority much augmented, also, by its being built wholly of brick, as already mentioned.

The print at the head of the article shews the inside of the old Royal Exchange, which bears a closer resemblance to the present interior than does its outside, though there are still material differences.

Exclusively of the elegant pillar on the north side, which the modern Exchange wants, the windows and arches in the interior of the two structures will be found to vary considerably, as well as their decorations. The same sort of attic windows appears on the roofs, as in the former print ; ten of these windows, and as many arches, forming part of the arcade below, are seen on the same north side, and the like number of each was, no doubt, on the south, east, and west sides ; making forty in the whole. The panelling of the arcade, the benches running round it, and the chequered pavement, seem to have been exactly copied in rebuilding : the recumbent figures above are additions which, if well executed, must have had a good effect. The statues of the kings, twenty-one of which are shown, are said to have then began with *Edward the Confessor*. The first sovereign, however, we can see in the point is *William the conqueror*, and the last *Elizabeth*, the reigning sovereign. Before her appear to be *Philip and Mary*, *Edward VI.* and *Henry VIII.* There is no central statue in the area, as now, nor does the latter appear to be paved.

In the ward-books of Cornhill ward there are several sentiments as to the great decay of the Royal Exchange, at a very short date after its building. As early as 1581, the wardmote inquest presented that for a long time the upper parts or arches of the Royal Exchange, being on the south-west and south parts thereof, within the said ward, whereunto the merchants did commonly resort, have access and walk, and which should have been kept in repair by the Lady Gresham ; had been, and were greatly, by the insufficiency of the workmanship thereof, and want of

good stuff, greatly defective, and very perilous to the walkers thereunder, insomuch that the main freestones of the arches had fallen, and a great part of the same arches were ready to fall, to the great danger of the lives of persons, young and old, daily walking thereunder, and resorting to the same Exchange.

In 1602, the walls on the south side of the Exchange are presented to be crazy and ruinous ; and the occasional repetition of complaints afterwards, accompanied by petitions for amendments, sufficiently bespeaks the inferior nature of the workmanship and materials of the first Exchange ; all ground of complaint, however, as well as need of repairs, were rendered unnecessary sixty-four years after this period, by the fire of London, which totally consumed the Royal Exchange, with so many other public buildings. The different published accounts which commemorate that calamity, uniformly point their attention to this prominent building ; and some of them, both in prose and verse, give descriptions of it, which in a mere topographical point of view furnish no bad illustration of the particulars which have been mentioned. We shall not further lengthen this article than by quoting from two or three of them.

A nearly contemporary work, called "London's Lamentation," in tracing the progress of the conflagration, thus speaks :—

"The Royal Exchange itself, the glory of the merchants, is now invaded, with much violence ; and when once the fire entered, how quickly did it run round the galleries, filling them with flames ; then descendeth the stairs, compasseth the walks, breathing forth flaming volleys, and filleteth the court with sheets of fire : by and by the *Kings* fall all down upon their faces, and the greatest part of the building with them, (*the Founder's statue only remaining*.) with such a noise as was dreadful and astounding !"

Another writer, describing the effects of the fire to his friend, says, "The Exchange is a sad sight, nothing standing there of all the statues or pillars, but *Sir Thomas Gresham's picture* [effigy] in the corner."

The most particular account is the following, in verse, which notices this fact of Gresham's statue remaining : and enumerates those of all the kings, with a sort of biography attached.—

Her next advance the ROYAL EXCHANGE presents ;

Where Gresham thus she compliments :—

Haile, Flames Survivor ; though thy Noble Pile

Be burnt (said she, and wept the while),

Thy grasshopper (turned cricket now), shall sing

A welcome to its second spring.

Meanwhile, this to thy memory is due,

For one Change meant, thou built'st us two.

The ROYAL STATUES miss'd, her memory,

Their chronicle did thus supply :

First, the *Confessor* left a doubtful crown,

Which *Harold* snatch'd, and soon laid down,

The *Norman's* prize : whom dead, his each deny'd,

For th' hart, the hunter, *Rufus*, dy'd.

To Beauclerk *Henry* Lampreys fatal were ;

Th' empress was *Stephen's* love and fear.

Fair Rosamond did *Second Henry* charm,

And *Lion-heart* the lamb did arm.

To *John*, the monk a deadly wassail clears ;

Third Henry's barons proved his peers :

First Edward, first the Welch and Scot did quell,

Spitted to death next *Edward* fell.

Third Edward first the noble garter ty'd ;

Uncrown'd the *Second Richard* dy'd.

Fourth Henry's arms pierc'd up his title's crack,

The *Fifth* pay'd France her conquest back.

Sixth Henry once lost France, and England twice ;

Both losses were *Fourth Edward's* rise.

Fifth Edward was a king; but for his crown
His uncle *Dick* pay'd him in down.
The *Seventh* Henry weds the Rival Rose;
The *Eighth* Rome's rival power o'erthrows.
Sixth Edward early ripe, did early rot;
A bloody reign did *Mary* blot.
Peace, plenty, piety, the *Virgin* fames;
Religion, peace, and learning, *James*.
A martyr's name *First Charles* alone doth beare,
May [merciful] the *Second* longer wear!

CHEMISTRY.—No. IV.

CHEMICAL NOMENCLATURE.

(Continued from page 28.)

THE electro-positive bodies are hydrogen, carbon, sulphur, phosphorus, boron, selenium, nitrogen, and the metals. These combine together in various proportions, and the titles of the compounds are an index to their nature. The syllables *uret* are added to the name of the combining substance to render it intelligible, and to this word is annexed the name of the base in full. Thus, for example, a compound of carbon and iron is called carburet of iron; of phosphorus and hydrogen, phosphuretted hydrogen; of sulphur and lead, sulphuret of lead. The term *bi* is also prefixed to the compound in these cases, if it contain two proportions of the combining body, or the term *per*; thus we find the terms bi-sulphuretted hydrogen, or, per-sulphuretted hydrogen, and bi or per phosphuretted hydrogen; the names indicating that in each case hydrogen is combined with two proportions of sulphur and phosphorus, or the largest quantities that are found capable of uniting with it.

The syllables *sesqui* are prefixed to a compound which contains, united with the base, fractional parts of the atomic weights of the body combining with it: thus *sesqui* chloride of antimony is composed of $1\frac{1}{2}$ atoms of chlorine with one atom of antimony. *Sesqui* sulphuret of arsenic is $1\frac{1}{2}$ atom of sulphur combined with 1 atom of arsenic. The syllable *di* is prefixed to the name of the compound containing one equivalent of the substance following, to two of the other, as *di* chloride of carbon, a compound of 1 atom of chlorine and 2 of carbon.

The employment of symbols to represent chemical compounds is of great advantage to the teacher, and to the student of chemistry. The use of the arbitrary characters employed by the alchemists to represent the substances known to them, has been relinquished, and letters or syllables, forming part of the names of the components, are substituted. It would be highly desirable if an universal system of symbolic representation were introduced; but this is by no means the case. Perhaps the mode employed by Dr. Turner in his excellent work, the *Elements of Chemistry*, is as free from objection as any, and it may be easily acquired. It consists in employing one or two letters to represent the simple elements, such as O, for oxygen, H, for hydrogen, Po, for potassium, So, for sodium, Pb, for plumbum (lead), &c. The compounds of these elements, or other bodies, are represented by interposing the algebraic sign of addition + and adding numbers if more than one equivalent of either, or of both components, exists. Thus oxide of potassium would be thus represented Po.+O. Protoxide of lead thus, Pb.+O. Sesquioxide of lead, Pb.+ $1\frac{1}{2}$ O. Per oxide of lead, Pb.+2 O. Water, H.+O.

A very convenient mode is sometimes employed of putting dots over these letters to represent the number

of equivalents in the combining substance. Thus $\ddot{\text{Po}}.$, would represent Po.+O., or oxide of potassium. $\ddot{\text{Pb}}.$, protoxide of lead. $\frac{1}{2}(\ddot{\text{Pb}}.)$, sesquioxide of lead. $\ddot{\text{Pb}}.$, per oxide of lead, or deutoxide of lead.

The same form of expression may be applied to more complex products. Thus bicarbonate of soda would be thus represented, $(\ddot{\text{So}}.+2\ddot{\text{C}}.)+1\text{Aq.}$, which means that sodium is combined with one atom of oxygen forming soda, which is united with 2 atoms of carbonic acid, represented by $\ddot{\text{C}}.$, or 1 atom of carbon with 2 atoms of oxygen, and the +1 Aq. denotes that the salt contains 1 atom of water (aqua.) One other familiar instance will, perhaps, be sufficient to render this mode of representation intelligible to the student. The sulphate of iron is composed of 1 atom of iron combined with 1 of oxygen, and 1 atom of sulphuric acid, which consists of 1 atom of sulphur and 3 atoms of oxygen, and the whole contains 6 atoms of water. It is thus simply represented, $(\ddot{\text{Fe}}.+ \ddot{\text{S}}.)+6\text{Aq.}$

We shall now proceed to give a brief description of the terms employed in Chemistry, and of the different processes and apparatus, in alphabetic order; this will be continued in subsequent numbers.

Acetates. Salts formed of acetic acid, or vinegar.

Acids. Bodies which have a sour taste redden the vegetable blue liquids, and neutralize alkalies.

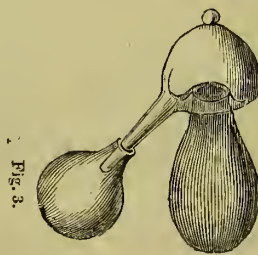
Affinity. A term applied to the capacity of dissimilar bodies for uniting chemically together.

Albumen. A lymph coagulable by heat into a solid. The serum of the blood, and the whites of eggs, are albumen.

Alcohol. Pure spirits of wine.

Alcembic. A glass vessel, formerly much used in distillation. See fig. 1.

Fig. 1.



Alkali. Caustic substances which restore the colour of the vegetable blues reddened by an acid, or communicate a brown colour to paper stained with turmeric, and neutralize acids.

Fig. 2.

Alkalimeter. A graduated glass vessel for ascertaining the relative strength of alkalies. Fig. 2.

Alloy. A compound of two or more metals.

Amalgam. A compound of mercury and metal.

Ammonia. An alkali, formerly called the volatile. It is composed of hydrogen and nitrogen, and may be thus represented—H 3+N.

Analysis. The separation of the several constituents of a compound body.

Annealing. The gradual heating and cooling of a substance, to prevent its brittleness. If glass were not gradually cooled, it would break with a slight touch, or with a minute variation of temperature.

Aqueous. Containing water.

Arseniate. A salt formed of arsenic acid.

Azote. Nitrogen.

Balloon. A spherical glass receiver. Fig. 3.

Barium. The metallic base of the earth barytes.



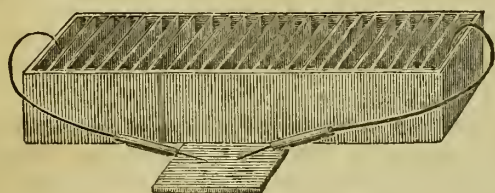
Barometer. A strong glass tube, above thirty-one inches long, filled with, and inverted over, mercury, which rises and falls in the tube according to the varying pressure of the atmosphere.

Base. The metal, earth, or alkali, which by union with an acid or other substance, forms a different compound.

Battery, Electric. A number of glass jars, coated partly with tin-foil, and connected together, to accumulate electricity.

Voltaic. A trough of porcelain or wood, containing separate cells, in each of which, when filled with dilute acid, a plate of zinc and a plate of copper connected together, are introduced. The Voltaic influence is generated and accumulated by these, and is evolved at each extremity called the pole. *Fig. 4* represents the mahogany trough, in which the plates are cemented to the wood; and *Fig. 5*, the porcelain trough, from which the plates may be removed at pleasure. The zinc plates in this arrangement are surrounded by copper, by which the quantity of electricity is increased.

Fig. 4.



[Fig. 5.]

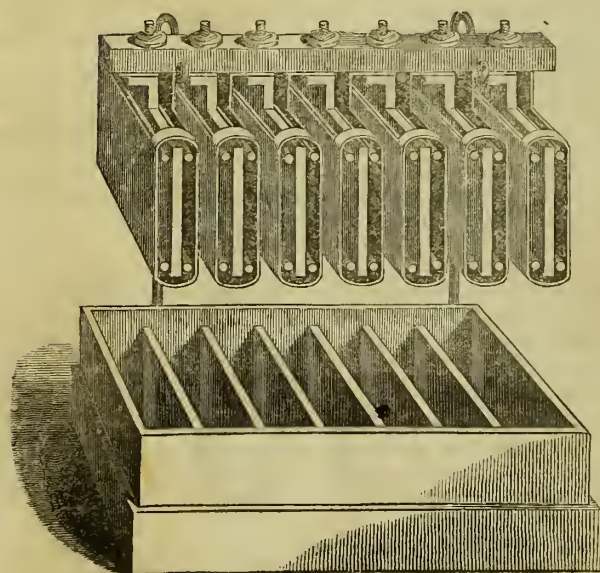


Fig. 6.



Blast Furnace. A furnace so contrived that a powerful current of air shall pass through the fuel to increase the heat.

Blow Pipe. An instrument to direct a jet of flame from a lamp or candle, on to any required point. See *Fig. 6*.

Bolt-head, or Matrass. A globular glass vessel, with a long neck, to contain substances intended to be heated. See *Fig. 7*.

Fig. 7.



Borates. Salts formed of boracic acid.

Boron. The base of boracic acid.

Calcination. Heating to drive off water, air, &c.

Calcium. The metallic base of lime.

Caloric. The term applied to the cause of heat.

Calorimeter. An instrument for ascertaining the quantity of caloric disengaged by a hot body in cooling.

Carbon. Charcoal.

Carbonates. Salts formed of carbonic acid.

Carbonic Acid. A compound of oxygen and carbon, ($\text{Cb} + 2\text{O}$) or Cb .

OF THE INHABITANTS OF INDIA.

AMONG the earliest civilized people of the world, we may unhesitatingly name those who inhabit the country in the neighbourhood of the magnificent river Ganges. Nothing tends more strongly to lead men into civilization and good fellowship, than a facility of obtaining a plentiful supply of the necessaries of life; and nowhere does that facility exist to a greater extent than in the luxuriant country in question. Where man's life, as is the case in most of the uncivilized portions of the globe, is but one series of struggles to obtain a scanty subsistence, and where it is hourly perilled by the ferocity of savage beasts, and the inclemency of the elements, all his sterner and less social feelings are so strongly excited, and so perpetually called into action, that a very long period must necessarily elapse, before he can become mild enough to wish for the comfort and security of his fellows, or obtain leisure to study the means of securing them, even if he have the desire to do so. Where he who possesses no tame herds, can only pick up a precarious subsistence by combating the beasts of the field, and by enduring all the rigours of an inclement climate; and where he who possesses tame herds is perpetually obliged to depend on the scanty pasture upon which they feed, and the brackish well from which they drink, by force of arms, and at the peril of his life; the seeds of anarchy and enmity are too thickly sown to admit of being easily or speedily uprooted. This was the case in Stony Arabia, and in the frowning forests and scarcely passable morasses of ancient Germany. This, in short, was the case with the progenitors of almost every nation in the world, the Chinese and the Indians excepted; and to this the comparatively late civilization of other nations is principally attributable.

This powerful obstacle to those humane feelings, and that just judgment, from which alone civilization can result, has never been known to the Indians. From the subsiding of the waters of the deluge to the present hour, the natural fertility of India has been such, that even without any cultivation, it would yield the mere necessities of life to a much larger population than that which has subsisted there; while with a very little cultivation, it would yield almost all the luxuries of life. We freely admit that the sultry climate of India ill fits men for the extreme toils to which the natives of a colder and more bracing clime are accustomed. That fact is too obvious, too notorious, to require proof, or to admit of satisfactory, or even plausible, contradiction. But let us remember, that if the hardier natives of the cold and temperate lands are better able to endure the extremes of laborious

hardship, so they are compelled to exert that ability; and it is equally as true, that though the Indians are plunged by the heat of their climate into comparative lassitude, they are, by its genial influence upon their naturally fertile soil, exempted from the necessity of labour. Moreover, with less animal energy, they also have fewer and less violent animal necessities. The natives of a cold climate, exhausted by the fatigues which they are compelled to endure, in order to cultivate their comparatively sterile lands, and even more exhausted by their more active natures, could scarcely exist without a plentiful supply of animal food. The same may be said of *roving* tribes, even in sultry climates; for their way of life requires that they should have a very invigorating and exhilarating diet, to render their strength equal to their exertions and fatigues. But with the Indians in the neighbourhood of the Ganges the case is wholly different. Even without cultivation, they have rice in abundance: and, trivial as this circumstance seems to us, it is to them of the very highest importance, for *rice is the chief article of their food*. The noble palm tree invites the Indian to repose beneath its spreading branches; figs and cocoa nuts abound in all directions, as also do the delicious and cooling citron and orange. Even clothing would at first be scarcely desirable; at all events the want of it would not counteract the many circumstances favourable to civilization and society. The mere covering necessary for the purposes of decency could readily be procured, and the warmth of the climate prevent the absence of more enveloping garments from being unpleasantly felt. Thus situated, those of the descendants of Noah who inhabited the delightful land watered by the Ganges, could scarcely avoid becoming civilized. All their real wants were liberally administered to by nature. Their soil afforded all things necessary for their support in such overflowing abundance, that they had scarcely occasion to exert themselves in industry, and had no temptation to exert or to endanger themselves in war. Even that mimic game of war, the chase, had no temptations for them; for they subsisted wholly upon a vegetable diet. Their passions were thus kept, almost unconsciously, in subjection, by the temperance of their lives; and being thus freed alike from the withering excesses of dissipation, and from the excitements and sufferings incident to want, they had ample leisure for the study of morals, and for the examination of the heavenly bodies; on which latter, their clear and cloudless atmosphere gave them an enviably great facility of gazing. It is to these peculiar circumstances, in their situation, that we must most undoubtedly ascribe the very early civilization of these people; a civilization so early, that the Arabians took from them their arithmetical characters, and the Persians the art of coining money. Into India, the Greeks, penetrated anterior to the time of Pythagoras, in order to study the sciences; and the Phœnicians and Egyptians in very early times, traded thither for those rich and delicious spices of which India was then, as now, the sole place of growth. Bacchus, the most ancient of that name, is said to have led an invading horde, from Egypt into India; which strongly proves that the latter must have been, even then, long united and civilized. Otherwise, what could tempt the Egyptians, themselves, subsequently, a most learned and civilized people, to invade them? Even the Chinese, who boast of the ancient nationality and early civilization of China, must yield the palm to the Indians; for it appears, that when some French literati were introduced to the Emperor

Cam-hi, that potent personage showed them a vast number of ancient Chinese coins, which had been carefully handed down by his predecessors; but the most ancient, and *considerably* the most ancient among them, were not Chinese, but *Indian* coins.

When once they had become civilized, which, as we have shown, they were well calculated to become at an early period, the Indians had in their religion a strong band of union, and a powerful preserver of peace. Like the other post-diluvians* they had fallen into idolatrous and false superstitions, but their superstition was at least of a mild and moral character. *All* superstition is hateful to the God of truth, and is therefore dangerous to those who practise it, and to be condemned by all Christian people. But while we censure all superstition as being *per se*† offensive to God, and injurious to man, we must not forget to distinguish between the various kinds and degrees of error. When we read of the horrible rites of the Druids, when we reflect upon the cruel and unnecessary sacrifices which they enjoined, and, when borne upon the swift and soaring wings of imagination, we painfully and indignantly fancy that we hear the piercing and unheeded shrieks of their wretched victims as the flames devoured them, we turn with comparative pleasure and admiration to the milder errors of the Indian idolaters.

(To be continued.)

COPPER MINE AT FAHLUN.

SWEDEN, although possessing a rocky and barren soil, contains under its surface, many valuable mines of copper and iron, and even of silver; and the produce of these forms the chief exports of this country.

The most celebrated of these mines is that of Fahlun, in the province of Dalecarlia. Unlike other mines, the entrance to this is very large, insomuch that almost the whole mine is laid open to the sky. This wide aperture was occasioned by the falling in of the upper works, through the negligence of the workmen, who refrained from using sufficient props to the galleries and roofs of the different chambers. The accident took place in 1666.

The dimensions of this crater are immense, and the spectacle from the edge of it is wonderfully imposing. Owing to the different exhalations from the mine, the sides of it are variously coloured, and the beauty of the view is much increased by regular staircases, which traverse the sides of this immense basin from top to bottom. At the lowest point of this crater there are several passages which communicate with other parts of the mine, which have never been exposed to day-light. Some of these parts enclosed have, for many years past, been in a state of ignition, through an accident which set the timber of the works on fire. Every attempt to put it out having proved ineffectual, a double wall has been built wherever there was a likelihood of its extending, in order to confine its influence to the parts already burning; and it is

* Persons who lived subsequent to the deluge.

† Of itself; in its own inherent nature.

hoped that this plan will, in time, extinguish the fire, by cutting off the current of air.

The proprietors hope to be in some measure indemnified for the injury occasioned by this fire, by the large quantities of sulphate of iron (green vitriol), which must have been extracted from the roasted ore; and should they

succeed in soon extinguishing it, the accident will more likely prove advantageous than otherwise.

The ultimate object of despotism and of priestcraft is uniformity; and uniformity is a powerful auxiliary to human imperfection.—Schiller.

Literary Review.

1. *A Manual of Entomology, from the German of Dr. Hermann Burmeister. By W. E. SHUCKHARD, M. E. S. With original Notes, and additional Plates. No. I. 8vo. Pp. 32. London: Churton; Tilt.*

THE science of Entomology, though not yet arrived to a system of uniformity, is so much indebted to the industry and research of Dr. Burmeister, that a translation into English of his celebrated "Manual of Entomology," must prove of great utility to all students in that particular branch of Natural History. Mr. Shuckhard has undertaken the task, and we may say with confidence that in the number before us, he has executed it with much perspicuity and conciseness, and delineated the characteristic descriptions of the original, with fidelity and precision. From the Prospectus we learn that "in addition to its numerous other scientific claims, this work will be found to comprise, in its Anatomical and Physiological departments, a generalization of the host of facts elicited by the laborious investigations of Straus Durekheim, Müller, Suckow, Leon Dufour, Nitzsch, &c. &c., up to a very late period; * * * and therefore must necessarily become extremely useful, not only to the Entomological, but also to the Physiological student, and to the scientific man in general." The pages of the present number are occupied, first, by a short introduction to the science; and, secondly, comprising nearly the whole of them, by explanatory definitions of the technical terms used to distinguish the several forms, sizes, colours, clothing, &c. of the various parts and organs of insects; proceeding to a description of the insect body in its separate periods of existence, and all the thence perceptible differences of its various organs. In addition to which, two illustrative plates, engraved on steel, and elucidatory notes, considerably enhance its value. We cannot therefore conclude this notice without strongly recommending the "Manual of Entomology" to the generality of scientific students, to every class of which it is rendered particularly available by its excessive cheapness, and periodic succession of numbers, which are to appear monthly, and which are not to exceed eighteen.

2. *The History and Antiquities of the Borough of Lyme Regis, and Charmouth. By G. ROBERTS. With Embellishments. 12mo. Pp. 338. London: Bagster; Pickering. Lyme Regis: Landray; Bennet & Dunster.*

THIS is an interesting volume, affording the general reader much valuable information respecting the early history and present

topography of Lyme Regis; and to individuals born there, and now residing in its precincts, or its neighbourhood, it will be found particularly attractive. It has increasing claims of distinction as a resort for sea-bathing, and as an amusing spot of diversion during the summer months. Lyme Regis is worthy of the pains taken by Mr. Roberts, to develop its antiquities and early renown; and with the addition of a few pleasing embellishments, and biographic sketches of its celebrated citizens, his work cannot fail to engage the interest of all.

3. *The Book of Trades; or Circle of the Useful Arts. With Engravings on Wood and Steel. Square 18mo. Pp. 356. Glasgow: Griffin & Co. London: Tegg.*

A VERY amusing little book to youthful readers, conveying abundant information respecting our various trades and manufactures: and to tell its own story, "presenting an account of those arts by which the various wants of civilized society are supplied." The numerous engravings interspersed among its pages considerably enhance its value, and very prettily illustrate the letter-press descriptions. We heartily recommend it to the youth of both sexes, considering it a work well entitled to a place in their library.

4. *The Rhetorical Class Book, &c. &c. By H. INNES. 12mo. Pp. 340. London: Limbird.*

PERSUASION is the distinguishing characteristic of true eloquence, and must entirely be founded not on fluency of words strung together by high-sounding periods and insignificant conjunctions, but by a succession of connecting arguments, carrying with them unhesitatingly clear conviction. Order and method must be put in practice, and a free and easy style, exciting interest by the choice of words, and powerful by conciseness of expression, must be thoroughly acquired. Add to this, the oratorical delivery must be distinct and firm, warm, animated, and determined. Before us is a work on this elegant accomplishment, by Mr. Innes, a teacher of elocution, from whose practical knowledge flow some excellent remarks. The rules of his art, also, are here explained with much judgment, and are applied to an excellent and sufficient variety of examples for the instruction of the learner; and taking the work as a whole, we are fully convinced that it will prove an acceptable companion to all those who are employed in this pleasing department of study and of education.

5. *Sober Views of the Millennium. By the REV. THOMAS JONES. 12mo. Pp. 51. London: Seeley & Sons.*

THIS is a calm and dispassionate consideration of the important doctrine of the Millennium, upon which there is so much diversity of opinion; but at the same time that the author attempts his elucidation, he expresses himself far from desirous of "entering the field of controversy with any man." His subject he divides into two parts. The first is devoted to the explication of the language of prophecy as contained in the words of Revelation* upon which this doctrine is founded: and the latter part entirely relates to the personal appearance of our Saviour. By way of information to our readers, we will extract a few of Mr. Jones' remarks.

A very glorious era is universally expected to come on the earth before the end of time, called the Millennium, or the thousand years when Christ shall reign on the earth, and the Kingdoms of the world be given to the saints. * * * All the information that we can have on the subject, must be found in the Scriptures of truth. * * * Many have asked when the Millennium will commence, but no man has yet been able to answer this question with certainty, and perhaps never will be able to ascertain the exact time it begins; and most likely it will be brought in, not at once, in its full splendour, but in a more gradual manner than is generally expected; there will be the day-star, the rising sun, and the meridian light. One thing we know to a certainty, that very great events must first come to pass before the Millennium is ushered in; such as the destruction of infidelity, and all antichrists in the whole world. The Gospel must be preached to all nations; the Jews must be converted to Christianity; and all the heathen nations must turn from idolatry to the living God. In a word, all nations will flow into Zion, about the commencement of the thousand years.

Respecting the personal appearance of our Saviour, the author observes,—

Christ will unquestionably come at the Millennium. He will come by his Spirit to extend his kingdom and the dominion of his grace. It is nowhere said (in the Scriptures) that he will then make his personal appearance, nor is it any where called his second coming. We have no more reason to expect that Christ will visibly appear at the Millennium, any more than at the destruction of Jerusalem,† or the day of Pentecost; applying to the Millennium those Scriptures which belong to Christ's second advent, to judge the world, is a poor shift to get rid of difficulties.

We will now take leave of these "Sober Views" in the author's own words, which state, that his "sole aim was to furnish honest inquirers with lucid and correct notions of the true character of the Millennium!"

* Rev. x. 4. † Matt. x. 23.

TO CORRESPONDENTS.

"X. Y." is assured our literary strictures are thoroughly impartial.

We refer "N." to our next number.

We regret to find "P." with so treacherous a memory; the event occurred in 1793.

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PINNOCK'S GUIDE TO KNOWLEDGE.

No. CLXIV.]

SATURDAY, MARCH 28, 1835.

PRICE
ONE PENNY



Garrick's Monument in Westminster Abbey.

BIOGRAPHY OF DAVID GARRICK.

THE subject of our biography this week is the celebrated comedian, David Garrick, who flourished in the days of Dr. Samuel Johnson, Pope, Sheridan, Burke, and other eminent literary characters. He was of French extraction, and born in Hereford, where he was baptized, February 20th, 1716. His early education he received partly at the Grammar School in Lichfield, and partly under the famous Dr. Johnson. But books and learning

were no great objects of his care or his attention, his mind being strangely biassed in favour of the *stage*, and continually directed to theatrical representation. When he was little more than eleven years of age, he performed the play of the "Recruiting Officer," prevailing upon some of his juvenile friends and associates to take particular parts, while himself acted Sergeant Kite, a character of busy intrigue and bold humour. This was

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executed so admirably by the young performers, particularly by Garrick, that it gained great applause from the astonished audience, and for some time formed a subject of conversation among the inhabitants of Lichfield. Young Garrick, on reaching his nineteenth year, became disinclined to continue longer at Lichfield, and, therefore, came up to London with his friend, Mr. Samuel Johnson, in 1735, and soon after his arrival entered himself a member of Lincoln's Inn, in order to pursue the profession of the law; and, likewise, for his advancement, he put himself under the tuition of Mr. Colson, an eminent mathematician. In 1737, the death of his uncle, a merchant of Lisbon, put him in possession of a legacy of 1000*l.*, upon the interest of which, by strict economy, he for some time very prudently subsisted. The charms of the legal profession, however, and the allurements of Mr. Colson's

mathematics and philosophy, were insufficient to satisfy the caprice of Mr. Garrick, who, with a mind devotedly attached to theatrical representation, could not refrain from encouraging his inclinations, nor would he even attempt to divert his thoughts from the study of that to which his genius seemed so powerfully to prompt him. In this wavering position, his father and mother being dead, he engaged, with his brother, Peter Garrick, in the wine trade. The opposite dispositions of the two tradesmen excited repeated altercations between them, and it was at last found necessary to dissolve the partnership. Thus left to direct his whole time and energies which way he pleased, Mr. Garrick prepared himself with great eagerness and assiduity to the employment he so ardently loved, and in which, eventually, he so eminently excelled.

He sought the company of the most eminent actors,

obtained introductions to the managers of the theatres, and quickly displayed his slumbering talent by reciting a few particular and favourite portions of the most admired plays; this he followed up by writing criticisms upon the elocution and the action of the players, which met the public eye in the prints of the day, and seemed to be the effusions of judicious observation, great shrewdness, and by no means wanting in liberality. His ambition for renown at length induced him to make his own first attempt upon a public stage; but his excessive diffidence urged him to decline hazarding a triumph upon the "boards" of a metropolitan theatre, and therefore he joined a company of players that were about leaving for Ipswich, under the direction of Mr. Giffard and Mr. Dunstall. In this town he made his trial in the summer of 1741. He assumed the name of Lyddal, and at his first appearance took the character of *Aboan* in "Oroonoko." Entering into the feeling of his author, he went through the part with great pathos and effect, and elicited from his audience abundant and most liberal applause, enough, indeed, to overwhelm his most sanguine expectations. Thus was stamped the seal of his immortal fame; and he proceeded in his career through the various characters of *Chamont* in the "Orphan," *Captain Brazen* in the "Recruiting Officer," *Sir Harry Wildair*, &c., with equal renown. In every essay so much delight did he afford the audience, that they heaped upon him loud and continued proofs of gratifying approbation.

Having gained so much *eclat* upon his first attempt, Garrick now ventured to tread the "boards" of London. On the 19th of October, 1741, he appeared at the theatre in Goodman's Fields, in the trying character of *Richard III.* Easy and familiar in both his speaking and his acting, with a correct and just modulation of his words, simultaneous with an expressive gesture, according to the dictates of true nature, he gave proofs of consummate art so evident, and knowledge of character so perfect, that loud and reiterated plaudits of admiration rung from every part of the house. Fame, the handmaid of his career, echoed the success of Mr. Garrick throughout the town. Covent Garden and Drury-lane theatres became deserted, and Goodman's Fields was the resort of the "fashionable world" every evening till its close: the carriages of the nobility and gentry are reported to have extended in one continued line even from Temple Bar to Whitechapel. Mr. Garrick had so perfectly convinced the public of his superior accomplishments, that not to admire him was esteemed to be wanting taste, and to be void of all intellectual refinement. By the efforts of his genius he threw fresh light on oratorical delivery and action; he banished ranting, bombast, and grimace; and restored nature, ease, simplicity, and genuine humour.

His great and unprecedented success drew down upon Garrick the envy of his contemporaries: among whom was Quin, who remarked of him, "that if the young fellow was right, he, and the rest of the players, had been all wrong." And again, Colley Cibber, at the instance of gnawing jealousy, observed, "Garrick was well enough, but not superior to his son Theophilus;" and that "he had little more to recommend him in the part, than pertness and vivacity." His malignity, however, met with severe reproof from the generosity of Mrs. Bracegirdle, a celebrated actress, who had left the stage thirty years before Garrick made his *début*:* her words were, "Come, come,

Cibber, tell me if there is not something like envy in your character of this gentleman; the actor who pleases every body must be a man of merit." The old man felt the force of this sensible rebuke; and taking a pinch of snuff, he frankly replied, "Why, 'faith, Bracey, I believe you are right; the young fellow is clever."

At the close of the theatre in Goodman's Fields, Garrick entered into an agreement with Fleetwood, the patentee of Drury-lane theatre, for 500*l.* a year. His fame continued to increase, and reached even to Dublin, from which city an invitation came, soliciting a display of his talents to an Irish audience, and upon conditions very profitable. Garrick accepted the offer, and performed there during the months of June, July, and August, to such "overflowing houses," that an epidemical distemper, brought on by the excessive heat, afflicted many of the frequenters of the theatre, who styled it, from that circumstance, the *Garrick fever*. Although much had been previously expected from him, the success that attended him here was, indeed, beyond all imagination; and he was esteemed by all ranks in Dublin a prodigy of theatrical accomplishment. He returned to London before the winter, and devoted himself indefatigably to his theatrical profession, in which his unexampled success now irrevocably fixed him. The very name of Garrick in the play-bills operated like a charm upon the people, and multitudes nightly thronged to see him "hold the mirror up to Nature." To pursue him, however, through the varied particulars of his life and histrionic energies, would far exceed our limits; we must, therefore, consistent with the space allotted us, confine our observations to the leading features that remain of his eventful career.

In 1744, Mr. Garrick made a second visit to Dublin, and became joint manager of the theatre there with Mr. Sheridan. Great success attended their united efforts, and Mr. Garrick returned again to London, in May, 1746. In April, 1747, he became joint patentee of Drury-lane theatre with Mr. Lacy. In addition to the profits accruing from his half share, he enjoyed 500*l.* more for his acting, besides certain emoluments for altering and adapting plays, farces, &c. Hitherto a bachelor, two years after connecting himself with the proprietorship of the theatre, he yielded up his "single blessedness" by marrying Mademoiselle Viletti, a young lady possessing much elegance of form, many polite accomplishments, and most of the amiable virtues of the mind.

Thus provided with a "helpmate," he assiduously applied himself to the arduous duties of his profession, but his over exertion and application considerably impaired his health; enough, indeed, to induce him to undertake a journey into Italy. Accompanied by Mrs. Garrick, he departed September 17, 1763, for the continent; and during his travels, many distinguished foreigners were amused with frequent proofs of his theatrical talents. He exhibited before the Duke of Parma, by reciting a soliloquy of *Macbeth*, and frequently contested for pre-eminent powers in depicting the various passions of the human mind, with Mademoiselle Clairon, a celebrated actress of Paris. After an absence of a year and a half, Mr. Garrick returned to London, April, 1765. In 1769 he projected and conducted the memorable Jubilee, at Stratford, in honour of Shakspeare: and in 1773, on the death of his co-partner, Mr. Lacy, the entire management of the theatre devolved on him alone. However, he did not continue in this position long, for old age and bodily affliction soon induced him to part with

* *Début*, a French word, signifying a first appearance.

his moiety of the patent, which he sold to Messrs. Sheridan, Linley, and Ford, for the sum of 35,000*l.*, June, 1776.

In the Christmas of 1778, while upon a visit at Earl Spencer's, a violent fit of his old disorder seized him, and confined him to his bed; in a little time, however, he was so far recovered, as to be conveyed to his own house in the Adelphi, which he reached January 15, 1779. The day following, he sent for his apothecary, who ineffectually administered to his relief, and the disease gained ground so rapidly that, notwithstanding the advice and prescriptions of several physicians, who had been called in to arrest its progress, it took him off on the 20th of the same month, five days after his arrival in town. The complaint was believed to be a palsy of the kidneys, and occasioned his decease without a groan. His body was interred with great magnificence in Westminster Abbey; and in 1797, a monument was erected to his memory by a private friend, and which our artist has endeavoured to represent to our readers in the preceding engraving.

Mr. Garrick was of low stature, but well proportioned, and possessed an easy and engaging deportment. His complexion was dark, and the features of his face, which were pleasingly regular, were animated by a full black eye, brilliant, and very penetrating. His voice was clear, melodious, and commanding, and had great compass of variety. Mr. Garrick was capable of managing it so judiciously, that the most distant of his audience heard with equal distinctness, the murmurings of gentle love, the half smothered accents of infelt passion, the whispers of an "aside speech," the rants of maddened rage, the darings of despair, and "the torrent, tempest, and, as may be said, whirlwind," of tragical enthusiasm. As to his peculiar fort, or superior cast in acting, it is difficult to determine. Particular superiority was swallowed up in his universality; and although it was sometimes contended, that there were performers equal to him, in their own respective forts of playing, yet even their partisans could not deny that there never existed any one performer that came near his excellence in so great a variety of parts. Tragedy, comedy, and farce, the lover and the hero, the jealous husband, and the thoughtless rake, were all alike open to his imitation, and all alike were honoured by his execution. Every passion of the human breast seemed subjected to his powers of expression; nay, even age itself appeared to stand still, or advance, as he would have it. Rage and ridicule, doubt and despair, transport and tenderness, compassion and contempt, love, jealousy, fear, fury, and simplicity, all took alternate possession of his features, while each of them, in turn, appeared to be the only occupier of those features. One night, old age sat on his countenance, as if the wrinkles she had stamped there were indelible; the next, the gaiety and bloom of youth seemed to overspread his face, and smooth even those marks which time and muscular conformation might have really made there. These truths were acknowledged by all who had seen him in the several characters of Lear, or Hamlet, Richard, Dorilas, Romeo, or Lusignan; in his Ranger, Bays, Drugger, Kitely, Brute, or Benedict. In short, Nature, the mistress from whom alone this great performer borrowed all his lessons, being in herself inexhaustible, and her variations not to be numbered, it is by no means surprising that this, her darling son, should find an unlimited scope for change and diversity in his manner of copying from her various productions; and, as if she had from his cradle marked him out for her truest representative, she bestowed on him such powers of expression in the

muscles of his face, as no performer ever yet possessed, not only for the display of a single passion, but also for the combination of those various conflicts, with which the human breast is oftentimes afflicted, so that in his countenance, even when his lips were quietly at rest, his meaning stood portrayed in characters too legible for any to mistake it;—truly may it be said

"We ne'er shall look upon his like again."

His private as well as his public character has been variously estimated. From his vast riches, which at his death amounted, as is supposed, to 140,000*l.*, he had the power of doing much good; and his liberality has been asserted by one party, and as strenuously denied by another. But it is impossible to refuse credit to the many instances of generous benevolence, which his biographers have produced, and as impossible to reconcile them with the common notions of avarice: we must, therefore, leave them to be discussed by others, and conclude this memoir by observing, that as a writer, Garrick claims but a second place; and of his dramatic pieces, of which there are about forty, some are original, but the greater part of them are merely alterations of old plays; to these may be added a few light pieces, minor poems, and numberless prologues and epilogues.

PREJUDICE.—There is a high degree of difficulty in questioning opinions established by time, by habit, and by education; every religious and political innovation is opposed by the timidity of some, the obstinacy and pride of others, and the ignorance of the bulk of mankind, who are incapable of attention to reasoning and argument; and must, if they have any opinions, have opinions of prejudice. All improvements, therefore, in religion and politics, must be gradual. There was a time when the most part of the inhabitants of Britain would have been as much startled at questioning the truth of the doctrine of transubstantiation, as they would, in this age, at the most sceptical doubts on the being of a God.—*Anon.*

THE WAPITI DEER.

[*Cervus strongylocerus.*]

THIS noble animal is a native of the wilds of Canada, where it was long considered to be the common stag of Europe, with which it was also confounded by naturalists, who ought to have known better. Latterly, however, its structure has been studied in a living specimen, in the Jardin des Plantes, at Paris, by F. Cuvier; and its habits, by Dr. Richardson, who in his official capacity, as naturalist to Capt. Franklin's Polar Expedition, had many opportunities of seeing it on its native plains. Dr. R. informs us, that it does not "extend its range further to the north than the 56th or 57th parallel of latitude, nor is it found to the eastward of a line drawn from the south end of Lake Winipeg to Saskatchewan, in the 103d degree of longitude, and from thence till it strikes the Elk River, in the 111th degree. To the south of Lake Winipeg, it may perhaps exist further to the eastward. They are rather numerous among the clumps of wood that skirt the plains of Saskatchewan, where they live in families of six or seven individuals. They feed on grass, on the young shoots of willows and poplars, and are very fond of the hips of the *rosa blanda*, which forms much of the under-wood of the districts which they frequent."

THE WAPITI DEER. [*Cervus strongylocerus.*]

The Wapiti is called by the Cree Indians, and other native tribes, by the several names of "Wawaskeeshoo," "Awaskees," and "Moostoosh," and by early authors, "The Red Stag of Canada." The height at the shoulders, is $4\frac{1}{2}$ feet, which is a foot higher than the European stag, with which it has been confounded. It differs also in many particulars of colour, and these differences illustrate in a very striking manner, the care with which all such characters should be distinguished, and their very great importance in pointing out the separation between closely related species. The common stag is of a uniform blackish brown, whilst the Wapiti has all its superior parts, and the lower jaw of a lively yellowish brown, with a black mark extending from the angle of the mouth along the side of the lower jaw. In the stag, a whitish circle surrounds the eye, but the Wapiti has no similar mark. In both, the limbs have a deeper brown colour on the front than the hinder parts; and both have a pale yellowish spot on the buttocks, bounded on the thighs by a

black line. The tail of the Wapiti is only $2\frac{1}{2}$ inches long, while in the stag, which is a smaller animal, it exceeds 7 inches. The hoofs are small and neatly formed, and the pastern bones set, so as to give great elasticity to the motions of the animal. The hair is generally of a short and close texture, but on the sides of the neck it is loose and shaggy, and often so long as to project forward, and form the appearance of a dew-lap.

Hearne says of the Wapiti, that "they are the most stupid of all the deer kind, and frequently make a shrill whistling and squeaking noise, not very unlike the braying of an ass." The former charge is not true, for it is a very vivacious and intelligent creature; but the latter may perhaps be believed, for F. Cuvier says they cry the *French* letters, A, O, U, successively in a continuous sound, and with very objectionable strength. They are of a very warlike disposition, for which they are fearfully provided in the great size and strength of their horns, and the powerful muscles of the neck, by which they are enabled to wield

them with deadly effect. They are supposed to engage in dreadful contests with each other, and have been found dead, with their horns locked together by the entanglement of the smaller branches. In a very fine one, kept in the Surrey Zoological Gardens, this ferocious disposition shows itself as soon as the horns have reached their maturity. It is dangerous then to approach him; but as soon as these formidable appendages are shed, which takes place in the spring of every year, he becomes the most timid and pusillanimous of beasts. A single wave of the hand will then drive him trembling to the corner of his paddock. We think Hearn must have described him at such a time.

The flesh of the Wapiti is coarse grained, dry, and hard, with suet-like fat. It is consequently but little prized by the natives, who are fond of soft and oily meats. The skin makes a durable and supple leather.

Mr. Bullock, who made so many unsuccessful attempts to naturalize the rein-deer in this country, exhibited a pair of Wapiti, in 1822, which drew a tilbury, and performed many little feats, by which they evinced a mild and teachable disposition. They are very hardy; and as they are not so confined in their food as the rein-deer, might perhaps be habituated to the climate, and have their uneven tempers subdued.

See *Richardson's Fauna Boreali Americana*, and *F. Cuvier's Mammiferes*.

SACRIFICES.

(Continued from p. 103.)

THE Romans were accustomed to the like sacrifices. They not only devoted themselves to the infernal gods, but constrained others to submit to the same horrid doom. Hence we read, in Titus Livius, that, in the consulate of Æmilius Paulus, and Terentius Varro, two Gauls and two Greeks, a man and a woman of each, were buried alive at Rome, in the ox market; where was a subterranean place, walled round, for such cruel purposes. Livius says, it was a sacrifice not properly Roman, that is, not originally of Roman institution; yet it was frequently practised there by public authority. Plutarch makes mention of a like instance, a few years before, in the consulship of Flaminius and Furius. There is reason to think that all the principal captives who graced the triumphs of the Romans, were, at the close of those cruel pageantries, put to death at the altar of Jupiter Capitolinus.

Caius Marius offered up his own daughter, Calpurnia, to obtain success in a battle against the Cimbri. Marius was of a sour and bloody disposition: he had probably heard of such sacrifices being offered in the enemy's camp, (among whom they were common,) or he might have beheld them at a distance; and he therefore murdered what was nearest, and ought to have been dearest, to him, to counteract their horrid spells, and surpass their diabolical practices.

We may infer that in the time of Cicero this custom was discontinued among the Romans; as, in mentioning that it was common among the Gauls, he observes that it prevailed among that people, *even at the time when he was writing*; and Pliny informs us, that it had then, but not long, been discouraged. During the consulate of Lentulus and Crassus, so late as the year 655 of Rome, a law was enacted, that there should be no more human sacrifices; for till that time those horrid rites had been cele-

brated in open day, without disguise or control; a fact which would be almost incredible, had we not the most unquestionable evidence of its truth. But however they may have been for a time discontinued, we find it reported, that not long after, Augustus Cæsar, upon the surrender of Peruvia, (besides executing multitudes in a military manner,) offered up *three hundred* selected persons, of the higher ranks, at an altar dedicated to the *manes* of his uncle Julius. At Rome also the custom appears to have been revived; as Porphyry assures us, that in his time a man was *yearly* sacrificed to Jupiter Latialis. Heliogabalus offered similarly to the Syrian deity which he introduced in Rome; and Aurelian is said to have done the same.

The Gauls and the Germans were so devoted to this shocking custom, that no business of any moment was transacted among them, without being prefaced with the blood of men. They were offered up to various gods; but particularly to Hesus, Taranis, and Thautates. These deities are mentioned by Lucan, where he enumerates the various nations who followed the fortunes of Cæsar. The altars of these gods were far removed from the common resort of men; being generally situated in the depth of woods, that the gloom might add to the horror of the operation, and give a reverence to the place and proceeding. The persons devoted were led thither by the Druids, who presided at the solemnity, and performed the cruel offices of the sacrifice. Tacitus takes notice of the cruelty of the Hermunduri, in a war with the Catti, wherein they had greatly the advantage; at the close of which they made one general sacrifice of all that were taken in battle. The poor remains of the legions under Varus suffered in some degree the same fate. There were many places destined for this purpose, throughout Gaul and Germany, but especially in the mighty woods of Arduenna, and the great Hercynian forest,—a wild that extended above thirty days' journey in length. The places set apart for this solemnity were held in the utmost reverence, and only approached at particular seasons. Lucan mentions a grove of this sort near Massilia, which even the Roman soldiers were afraid to violate, though commanded by Cæsar. It was one of those set apart for the sacrifices of the country.

These practices prevailed among all the people of the north, of whatever denomination. The Massagetæ, the Scythians, the Getes, the Sarmatians, all the various nations upon the Baltic, particularly the Suevi and Scandinavians, held it as a fixed principle that their happiness and security could only be obtained at the expense of the lives of others. Their chief gods were Thor and Woden, whom they thought they could never sufficiently glut with blood. They had many very celebrated places of worship; especially in the island of Rugen, near the mouth of the Oder, and in Zealand: some too, very famous, among the Semnones and Naharvalli. But the most revered of all, and the most frequented, was at Upsal, where there was every year a grand celebrity, which continued for nine days. During this term, they sacrificed animals of all sorts; but the most acceptable victims, and the most numerous, were men. But of all these sacrifices, none was esteemed so auspicious and salutary as an immolation of the royal head of the country. If the lot happened to fall on the *king*, the announcement was received with the most rapturous and universal expressions of joy: thus it once happened in a time of famine, when the lot declared king Domalden to be the chosen victim, and he was accordingly sacrificed. Upon another occasion, Olaus Iretelgen,

their prince, was thus burnt alive in honour of Woden, by the infuriated populace. These horrid idolaters did not spare even their own offspring. Verotegan relates, that Harald, the son of Gumild, the first of that name, slew two of his children, to obtain a storm of wind, for the purpose of producing such a tempest at sea, as should disperse and wreck the fleet of Harald, king of Denmark. A similar fact is recorded by Saxo Grammaticus, who calls the sacrificing monarch Haquin; and observes, that the persons thus inhumanly put to death were two very hopeful young princes. Another king slew nine sons, in the vain hope of thereby obtaining a prolongation of his own days; as if he imagined that the years of life, of which he deprived them, could be added to his own existence. Such dreadful and unnatural instances, however, were rare; but common victims were almost innumerable. Adam Bremensis, speaking of the awful grove of sacrifice at Upsal, says, that there was not a single tree that was not revered, as if it were endowed with some divine quality; and this, only because they were polluted with gore and human putrefaction.

The manner of slaughtering human victims was various in different places. Some of the Gaulish nations chined them with a stroke of an axe. The Celtæ placed the man who was to be offered for a sacrifice upon a block, or an altar, with his breast upwards, and with a sword struck him forcibly across the *sternum*; then, tumbling him to the ground, from his agonies and convulsions, as well as from the effusion of blood, they formed a judgment of future events. The Cimbri ripped open the bowels; and from them they pretended to *divine*. In Norway, they beat men's brains out with an ox yoke. The same operation was performed in Iceland, by dashing them against an altar of stone.

In many places they transfixed them with arrows. After they were dead, they suspended them upon the trees, and left them to putrefy. One of the writers above quoted mentions that, in his time, seventy carcasses of this sort were found in a wood of the Suevi. Dithmar of Mersburgh, an author of nearly the same age, speaks of a place called Ledur, in Zealand, where there were yearly *ninety-nine* persons sacrificed to the god Swantowite. During these bloody festivals, a general joy prevailed, and banquets were most royally served. They fed, caroused, and gave a loose to indulgence, which at other times was not permitted. They imagined that there was something mysterious in the number *nine*: for which reason these feasts were, in some places, celebrated every ninth year; in others, every ninth month; and continued nine days. When all was ended, they washed the image of the deity in a pool, and then dismissed the assembly. Their servants were numerous, who attended during the term of their feasting, and partook of the banquet; but, at the close of all, they were smothered in the same pool, or otherwise made away with. As respects this horrid custom, Tacitus remarks, How great an awe it must necessarily have infused into those who were not admitted to these mysteries!

The truth of the preceding various accounts cannot be questioned, since they are handed down to us from a variety of authors of different ages: men who, for the most part, were natives of the countries they respectively describe; to which, also, they appear to have been strongly attached. It would, therefore, be absurd to suppose that such men would have brought so foul an imputation, as these records contain, against a part of the world in favour

of which they were writing; and it is palpable that, were not the history in general *true*, there would not be such concurrent testimonies of the facts as now exist.

(To be continued.)

THE ASSOCIATIONS OF SOUND WITH SENSE

IN THE WORDS OF THE ENGLISH LANGUAGE.

A GENERAL analogy between the sound and sense, is to be found in every author whose fancy strongly imprints images on his own mind, and whose choice and variety of language readily supply him with just modes of representation. Jollity and mirth necessarily tune the voice of a poet to gay and sprightly notes, as well as fire his eye with vivacity; and gloomy situations, and disastrous events, sadden his numbers, as they cloud his countenance.

Sounds originating in different causes frequently resemble each other in tone; and language assimilates to the sound, as well as the meaning of the action it expresses. Thus the lines:—

—“On a sudden open fly,
With impetuous recoil and jarring sound
Th’ infernal doors, and on their hinges grate
Harsh thunder.”—MILTON.

“The impetuous arrow whizzes on the wing.”—POPE.

“The string, let fly,
Twang’d short, and sharp, like the shrill swallow’s cry.”—POPE.

There is no similarity between thought and sound; but there is the strongest similarity between the emotion excited by music, tender and pathetic, and that excited by the complaint of an unsuccessful lover. In some instances, the sound even of a single word makes an impression similar to that which is produced by the thing it signifies. *Running, rapidity, impetuosity, precipitation, &c.* are words of this description; and instances of the same kind occur in every language.

Brutal manners produce in the spectator an emotion not unlike what is caused by a harsh and rough sound; hence the beauty of the figurative expression, “*rugged manners*.”—and the word *little* being pronounced with a small aperture of the mouth, has a weak and faint sound, which makes an impression resembling that produced by a diminutive object. This resembling of effects is still more remarkable, where a number of words are connected together in a period. Pronounced in succession, they often produce a strong impression; and when this impression happens to accord with that made by the sense we feel a complex emotion peculiarly pleasant; one proceeding from the sentiment, and one from the melody or sound of the words.

From a number of syllables in succession, a sensation is perceived similar to that which is excited by successive motion; as *precipitation, impetuosity*. In the same manner also slow motion may be justly imitated in a verse or sentence where long syllables prevail, and especially with the aid of a slow enunciation. And likewise, words consisting of long syllables, resemble solemn, harsh, or difficult motion; as *forewarn, mankind*.

By the frequency of its pauses, a line composed of monosyllables makes an impression similar to that of laborious interrupted exertion. Thus,

“First march the heavy mules securely slow;
O’er hills, o’er dales, o’er crags, o’er rocks they go.”
POPE.

“With many a weary step, and many a groan,
Up the high hill he heaves a huge round stone.”
POPE.

The impression made by harsh and rough sounds resembles that made by rough or tumultuous operations. As,

"When they list their lean and flashy songs,
Harsh grate on their scarnel pipes of wretched straw."
MILTON.

"Loud sounds the air, redoubling strokes on strokes,
On all sides round the forest hurls her oaks
Headlong. Deep echoing groan the thickets brown,
Then rustling, crackling, crashing, thunder down."

POPE.

To be continued.

VARIETIES.

INSENSIBILITY.—The most selfish villager has no conception of that degree of selfishness and insensibility to the feelings of others which exists among the sons of luxury and sloth in capitals, where the heart is rendered callous by the daily exhibition of profusion contrasted with want, misery with mirth, and where people are so often the witnesses or accomplices of the ruin of friends or acquaintance.—*Dr. Moore.*

PAPYRUS.—The true *Papyrus*, from which paper was formerly made, and which was thought to be lost, has been, it is said, discovered at Syracuse, growing wild; and that, after various experiments, paper has been manufactured from it, similar to that used by the Egyptians.—*Athenæum.*

PLANTS.—"The botanist is conversant with from 80,000 to 100,000 species of plants."—*Hersch. Disc.* This is a much larger number than former estimations. The laborious and active minded Loudon mentions only 44,000, of which 38,000 had been described.—*Ency. Gard.* There is a remarkable connexion between water and plants. Madden observed, in the deserts he traversed, that "wherever there is water, no matter in what part of the wilderness, there vegetables are found."—*Travels in Turkey.*

RAIN, &c.—Mr. Dalton has calculated the quantity of water which falls from the air in rain and dew, in one year, in England and Wales only, at 115,000 millions of tons. Of this immense amount, about one-third is carried off by the rivers and subterranean cavities. . . . The same philosopher infers that 75,000 millions of tons are yearly evaporated into the atmosphere, from the surface of England and Wales only.

Literary Review.

9. *The Life of Samuel Johnson, LL.D. including a Journal of his Tour to the Hebrides.* By JAMES BOSWELL, Esq With Anecdotes and Notes by Various Hands. Vol. I. 1835. London: Murray.

WE welcome with much pleasure this cheap and elegant edition of Boswell's Life of the celebrated Dr. Johnson. There is not an individual, laying the least claim to literary acquirements, but must be delighted with having in eight portable and beautiful volumes "all the existing materials for the Biography of Dr. Johnson, together with copious illustrations, critical, explanatory and graphical." This first volume reaches down to the 44th year of the "Great Lexicographer's" life, and possesses a few beautifully executed engravings, one of which is a whole-length portrait of the Doctor himself. The work needs not our eulogy to recommend it; we will therefore merely observe that a volume will be published every month, till the work is completed.

10. *The Elements of Algebra; translated from the French of M. Lacroix.* By W. H. SPILLER. 12mo. Pp. 342. London: Souter. Paris: Bachelier.

THIS admirable work, so well known and appreciated both in England and on the continent, for the easy and familiar style in which it is written, for its great perspicuity and precision, and for its intuitive progression, has long merited translation. Mr. Spiller has executed the task in the work before us, and we cannot shut it up, without confessing that he has done it ably, accurately, and with much fidelity.

11. *The Mother's Catechism of Useful Knowledge.* Pp. 130. Edinburgh: Fraser and Co.

THIS will be found a pleasing little work for our younger readers; containing much information respecting the various commodities in

daily use, and many explanatory definitions of scientific topics of conversation, which are of common and continued occurrence.

12. *Elements of Thought.* By ISAAC TAYLOR. 12mo. New edition. Pp. 165. London: Holdsworth and Ball.

A VERY clever, pleasing, and intellectual little volume, suitable to the development of every mental faculty, and well worthy of extensive patronage. Its design "is to impart, in a familiar form, elementary explanations and instructions on subjects connected with the intellectual faculties, to afford gradual and easy exercises to the powers of abstraction; and thus to conduct the young reader, by an accessible path, into that region of thought, where the mind acquires force, accuracy, and comprehension." What can be more desirable to an aspiring youth, than such a volume, which familiarly initiates him into the "science of the mind, or its physiology, Metaphysics, or the philosophy of abstraction, and Logic, or the science and art of acquiring and communicating knowledge?" We subjoin the author's elucidation of

PREJUDICE.

"An opinion adopted or maintained, without proper regard to the evidence on which it rests, and especially if it be adhered to, under the influence of improper motives, is called *prejudice*, whether or not, that opinion be in itself well founded. Two persons may believe the same thing, or hold the same opinion, the one from rational conviction, the other from prejudice. Prejudices may be classed J, according to the quality of the motives from which they spring. Of these motives, some are of a pleasurable, or comparatively innocent, or social kind; while others are malignant and pernicious. Among prejudices of the first class may be mentioned—those springing from personal vanity.—When our own endowments, or qualifications, or acquirements, or external advantages, are placed in comparison with those of others, the emotion of self-love so much disturbs the judgment, that we are in great danger of falling into egregious errors of estimation, and often believe those virtues or talents to be splendid, which, in truth, are only of an ordinary kind. There are prejudices of the heart, which are rather weaknesses, than vices. Thus the fondness of parents for their children, leads them often

to overrate their good qualities, and to be blind to their faults. What is called the love of country, or the warm preference of the land of our birth, to all others, usually brings with it some false judgments, which cannot be deemed better than prejudices. There are prejudices of a more indefinite nature, though perhaps they may be traced to some modification of self-love. Such are the capricious and fond preferences which weak minds exhibit towards things, persons, or pursuits, they have accidentally become attached to. And such is that eager fondness for, and exclusive attention to, frivolous or comparatively unimportant amusements, in matters of science or literature, which fill some men's days with laborious idleness. So strong are prejudices of this order, in some cases, that the attainment of a rare coin, or shell, or insect, or plant, for completing a collection, or the purchase of a scarce book, shall entirely engross the mind, and appear a matter of more grave importance, than the most momentous affairs of real life! Of such pursuits it may be said, that though they seem innocent, they are not so, if they withdraw the mind from the offices of charity and philanthropy; or render a man useless in the world, abounding as it does with miseries that might be alleviated by zeal and kindness. Prejudices springing from malignant motives * * are always both injurious and odious;—such are those which arise from the pride of rank, wealth, or learning;—from capricious antipathies against individuals;—from personal jealousies, or opposition of interests;—from party spirit, in matters of religion, or politics;—or from national, provincial, or corporate animosities. There may indeed be something amiable in the prejudice which impels a man to think that the climate, and the produce, and the institutions of his native land are the best in the world; though in fact they may be among the worst. But the prejudice which leads an Englishman to hate, or to hold in contempt, an American or a German, is altogether vicious.

TO CORRESPONDENTS.

"Philologus" will find a Title and Index to Vol. II. in the Monthly Part for January, 1835.

We are obliged to an Anonymous Correspondent for his complimentary note, and also for his information respecting the *Antique Pamp.*

"S. B." may expect an account of the *Hop-Fly* in an early number.

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PINNOCK'S GUIDE TO KNOWLEDGE.

No. CLXVI.]

SATURDAY, APRIL 4, 1835.

PRICE
ONE PENNY.



CANUTE AND HIS COURTIER'S.

UPON the death of Svein, the Danish monarch, who had long infested England with myriads of his depopulating countrymen, and held possession of a very extensive portion of its promising soil, the weak and pusillanimous Ethelred was recalled by his people to the government of his kingdom, A. D. 1016, which, a little while previous, the disaffection that arose from his inefficient rule had compelled him to abandon, and for personal security seek an asylum in the court of his brother-in-law, Robert, duke of Normandy. The conditions attached to his restoration were very moderate, requiring only that he should govern with greater justness and vigour, and with less partiality and less tyranny. The successor of Svein, on the other hand, was Canute;

a bold youth, whose education and experience well fitted him to maintain the honours of his father, uphold the dignity of his crown, and enlarge the sphere of his inheritance. He began his reign by attempting the recovery of England and Norway, two states that had revolted against the government of his father Svein.* Sailing from East Anglia he reached Sandwich, where he landed the English hostages that had been given as pledges of obedience; but in revenge for the opposition of the nation, he brutally deprived them of their hands and noses. Returning again to Denmark, he soon quieted the disturbances raging in that part of his dominions, and

* Svein is also written Sweyn and Swayne.

then prepared himself for resuming hostilities against England. Ethelred, during Canute's absence, busily applied himself in adopting measures to repel the threatened invasion, and gained over to his assistance Olave, the son of Harold Grænski, a Norwegian sea-king. Canute, with increased energies, also set sail from Denmark, and effected a landing on the southern coast of England; where, to the material injury of the cause of Ethelred, he was joined by the perfidious Edric, who traitorously deserted his own sovereign, and went over to Canute with forty ships. The advance of the Danes was the march of victory: Wessex soon submitted to their conquering arms, and gave hostages for its fidelity; while Prince Edmund, the heir-apparent, sought security for his army by retreating to the interior. The invading Danes closely followed him, marching through Buckinghamshire to Bedford, and thence to York, compelled submission from every place they visited, and obtained hostages in security for the obedience of the conquered natives. At this crisis the death of Ethelred placed Edmund on the throne, and

at the same time released England from one of its greatest enemies.

Edmund had a spirit full of energy, and a constitution so hardy, that he obtained the surname of *Ironsides*. Capable of wielding the sceptre of his ancestors with manly dignity, active courage, and honest equity, he gallantly contended against Canute and his confederate; and even after losing two considerable battles, kept such a countenance, and held so threatening an aspect, that Canute was induced to make overtures to him for a peaceable partition of the kingdom. Half of the country being already in the occupation of the Danes, and Edmund finding himself unable to recruit his strength sufficiently for an effective opposition, deemed it most politic for the welfare of his people to consent to the terms proposed, and accordingly Edmund was to reign in the south, and Canute in the north. The rival princes then changed arms and garments, and the armies separated.

The brave Edmund did not long survive the pacification. He was assassinated through the perfidy of Edric, who is

reported to have effected the inglorious deed with his own hand, A. D. 1017. Some authors expressly affirm that Edric was corrupted by Canute to assassinate Edmund: however, the king's violent death is a subject of much controversy, and involved in much conjecture.

Canute, though now but twenty years of age, obtained on Edmund's death the sovereignty of all England. He was chosen king by general consent, and applied himself immediately on his accession to reward his partisans, and remove all whom he suspected to be opposed to his elevation. He even put to death many of the English nobility who had deserted their native sovereign, and among the rest the designing and perfidious Edric. He also imposed heavy taxes on the people in order to raise sums for the payment of his Danish troops, and levied a large mulct upon London, which had long resisted his power. After these sanguinary and tyrannical efforts to secure his crown, Canute wisely attempted to conciliate the minds of the English by a just and beneficent government. He restored the Saxon customs, made no distinction between Danes and English in the distribution of justice; carefully protected life and property; and sent back to Denmark as many of his followers as he could spare, while he incorporated the rest with his new subjects. To secure himself against the interference of the Normans in favour of Edmund's children, his wise policy induced him to marry Emma, the sister of the duke of Normandy. Having thus established himself upon the throne of England, and firmly grasping the sceptre of his newly-acquired dignity, Canute, who from his warlike ability obtained the surname of the Brave; from his renown and empire, that of the Great; from his liberality, the Rich, and from his devotion, the Pious; turned his attention to Denmark, the tranquillity of which had been interrupted by the inroads of Swedish ambition. He set sail for the Baltic, taking with him a great body of English soldiers, among the principal of which was Earl Godwin, who now began to make some figure in the annals of our country, A. D. 1025. After landing, and obtaining all the information that could be gathered on the state of affairs, Canute devised the plan of his operations, and in the dead of night made a vigorous and daring attack on the Swedish camp. His energies were successful; and pursuing the advantage, with rapid and forced marches overtook the enemy, and in a sanguinary battle defeated and slew the Swedish king. In one of these struggles, however, Canute being unsuccessful, the young Earl Godwin, with the English troops, attacked the king's enemies by surprise, and obtained a complete and important victory. This event considerably enhanced Canute's estimation of English valour and even of English loyalty, and was highly instrumental in advancing Earl Godwin in the king's good favour. The success of his arms keeping pace with the growth of his ambition, Canute began to revive his claim to the crown of Norway, which by conquest had once been subject to the rule of his father. St. Olave, the reigning monarch, made but a slight opposition to his demands, while Canute in the meantime was basely undermining the affections of the Norwegians, and by bribery exciting them to revolt. The effect of his intrigues was the expulsion of St. Olave from his dominions, and the invitation from the people for Canute to take possession of the crown and territory. The wishes of this great prince becoming thus satisfied, he now had the pleasure to see himself one of the greatest sovereigns of Europe; holding the kingdoms of Denmark, Norway, and England, and

rendering Sweden tributary to him. In this enviable state of prosperity and quietude from warfare, the enlarged and thinking mind of Canute became impressed with the vanity of the wild projects of ambition, though ever so successful; and while he was the object of universal reverence and admiration, of which indeed he was perfectly aware, he intensely felt his own nothingness. There is something in the incident of the *sea*, which discovers a mind of power looking far beyond the common associations of mankind. Canute had conquered many countries. In an age of valour and enterprise his exploits had equalled the most adventurous. Poets embodied in their melodies the admiration of his people, and directed to his heart those praises with which all Europe resounded. Encompassed with flattery and subjection, Canute's mind may have been swollen into temporary presumption. He may, under the influence of vanity, have fancied himself scarcely a mortal; but his mind was too powerful to suffer him to continue long the slave of conceit. When impelled to gaze on the wonders of prolific nature, he felt that some great adorable Being governed not his people only, but himself also; he found humility in the possession of his heart, and became thoroughly convinced of his individual insignificance. To impart to his adulating friends the solemn sensations which thus occupied his soul, and to convey to them the full impressions they excited, he ordered his chair of state to be placed on the sea-beach. His courtiers attended round him when he was seated, and the tide was fast undulating to the shore. He thus spoke: "Ocean, the island on which I sit is mine, and thou art a part of my dominion. None of my subjects dare to resist my orders; I therefore command thee that thou ascend not my coasts, nor presume to wet the borders of my robes." In vain the mandate issued. He was not the master whom the waters revered; and in contempt of his authority every wave drew nearer to his feet, till the general elevation of the ocean covered his legs with its billows. It was then he severely rebuked the flattery of his courtiers, and gave expression to the noble sentiment which was impressing his mind:—"Let every dweller upon the earth confess that the power of kings is frivolous and vain. He only is the Great Supreme; let Him only be honoured with the name of Majesty, whose nod, whose everlasting laws, the heavens, the earth, and sea, with all their hosts, obey." This interesting scene occurred at Southampton; and our artist has provided our readers with a representation of it in the engraving at the head of this article, which is taken from a fine painting by Smirke.

In conformity to those sublime feelings displayed by Canute, he would never afterwards wear his crown; and guided by the tenor of his thoughts, he entered deeply into the devotion of the times, practised religious exercises, built churches, endowed monasteries, enriched the clergy, and founded masses for the souls of those slain in his sanguinary and unjust wars. He even made a pilgrimage to Rome, and resided there a considerable time, during which he obtained numerous privileges for the English school in that capital.

On his return from Rome, in 1031, Canute undertook an expedition against Malcolm, king of Scotland, who had refused to pay him homage for the county of Cumberland, which he held under the English crown. The appearance of his army on the borders, and the threatening aspect he held out, quickly brought the Scottish king to submission, and compelled him to yield the point in

dispute. After this circumstance Canute enjoyed four years of peaceful quietude, respected and obeyed by all his subjects; and in the year 1035, while at Shaftesbury, he died a natural death, leaving his extensive dominions the joint property of his three sons. To Svein was allotted Norway; to Harold, England; and to Hardicanute, Denmark.

Of the private character of Canute the Great very little is known; among his kingly qualities he was distinguished for his liberality. Whoever approached him was fed and cherished without a request; and his presents, in general, were guided and directed by these three objects—charity, literature, and public services.

CHEMISTRY.—No. V.

EXPLANATION OF CHEMICAL TERMS, &c.

(Continued from page 94.)

Carbonate. A salt formed by the union of carbonic acid with a base.

Carburel. A compound of carbon and another body.

Chalybeate. Waters containing iron in solution are called chalybeate.

Chloride. A compound of chlorine with a base.

Chromate. A salt formed of chromic acid and a base.

Cohesion. The force or power by which the particles of a body are united and form an aggregate mass.

Combustion. A body is said to undergo combustion when it emits more light and heat than has been applied to commence the action, and undergoes an essential chemical change.

Comminution. The reduction of a solid substance into very minute particles.

Concentration. The act of driving off diluents is called concentration. A weak solution of a salt is concentrated by evaporating the superfluous water.

Condensation. When the particles of a substance are brought into a state of closer approximation, it is said to be condensed. The particles of vapour are condensed into a liquid by refrigeration. Mechanical pressure will also condense most bodies.

Connecting Piece. A short tube with a female screw, to attach stop-cocks and other articles of apparatus together. The whole of a chemist's apparatus should be so adjusted, by having similar threads in the screws, and receivers or connecting-pieces, and stop-cocks, that any one piece may be united to another, if necessary, by the screw.

Crucible. A vessel in which substances are exposed to intense heat. Those of platinum withstand the greatest heat, but are not applicable to all purposes, as some metals, and other bodies, combine with them by heat. Those called *Hessian* crucibles bear a high temperature, as also do those formed of plumbago. The annexed cuts represent them of the usual different forms. Fig. 1—the crucibles. Fig. 2—the covers for them.

Fig. 1.



Fig. 2.



Crystal. A body of regular and definite form. Most of the salts form regular crystals: they are named according to their form.

Cupel. A small cup, or crucible, made of bone ashes, formed into a paste with water. It is used to assay gold or silver.

Decantation. Separating one fluid from another, or from impurities that have subsided, by pouring gradually out, or by means of a syphon.

Decomposition. The separation of a compound substance into its proximate or ultimate elements.

Decrepitation. The act of heating salts to separate their water of crystallization.

Deflagration. The term is applied to the process of throwing substances, mixed with nitrate or chlorate of potash, into a red-hot crucible, by which combustion is produced. It is also applied to some instances of combustion by other modes.

Fig. 3.



Deflagrating Jar. A glass vessel, to contain oxygen gas, or chlorine, in which bodies may be burned. It should be provided with a ground-glass stopper. See Fig. 3.

Fig. 4.



Deflagrating Ladle. A copper or iron cup attached to a wire, for containing phosphorus, sulphur, or other substances intended for burning in the deflagrating jar. On the upper part of the wire is a circular disc of metal which fits on the neck of the jar, and prevents the escape of the gas. See Fig. 4. a—the cup, b—the disc.

Deliquescence. The liquefaction of a salt by its absorbing water from the atmosphere.

De-oxidate. To deprive a body of its oxygen.

Dessication. Depriving a body of its vapour or water. Gases are dessicated or dried by means of chloride of calcium, or sulphuric acid, which abstracts the vapour.

Detonation. An explosion.

Digestion. Heating a substance contained in a liquid.

Digestor (Papin's). A strong iron vessel, with a lid fitting airtight, and provided with a safety-valve. As the steam does not escape from this vessel when water is boiled in it, unless at high pressure, the temperature of the water may be raised sufficiently to reduce bones to a jelly.

Distillation. The separation of a volatile fluid by heat, from one that is less so. The vapour is condensed into a liquid by passing through a tube spirally coiled in a tub, which is kept full of cold water. Fig. 5. represents a small still for chemical purposes. a—the still; b—the worm and tub.

Fig. 5.

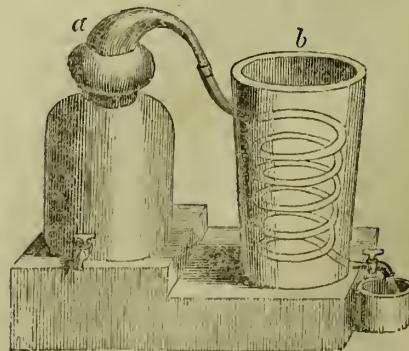


Fig. 6.



Dropping Tube. A glass instrument by which a liquid may be discharged in drops. The liquid is introduced into the tube on withdrawing the air from it by the mouth, when the lower extremity is immersed in the fluid. When used, the finger is kept on the upper extremity, *a*, to exclude the air; and each time it is removed, a drop falls from the lower end, *b*. See Fig. 6.

Ductility. The capacity of bodies to endure elongation or extension without fracture. The metals which may be drawn into wire are called ductile.

Edulcoration. The purification of a substance by affusions of water.

Effervescence. The intestinal motion which ensues by the liberation of gaseous matter, is called effervescence.

Efflorescence. Those salts which part with their water of crystallization, and are reduced to powder by exposure to the atmosphere, are called efflorescent.

Elastic Fluid. A vapour or gas which yields to compression, and resumes its original volume when the pressure is removed. The gases are called permanently elastic fluids.

Electrometer. An instrument for indicating the existence or force of electricity.

Electrophorus. An apparatus for obtaining an electric spark. It consists of a slab of resin and wax melted together; and when touched by a plate of metal with a glass handle, a spark is produced.

ORTHODOXY.

ORTHODOXY is a Greek word, which signifies a right opinion, and has been used by churchmen as a term to denote a soundness of doctrine or belief, with regard to all points and articles of faith. But as there have been amongst these churchmen several systems of doctrine or belief, they all assert for themselves that they only are orthodox, and in the right; and that all others are heterodox, or in the wrong. So that, what at one time, and in one place, hath been declared orthodoxy, or sound belief, hath at another time, and in another, or even the same place, been declared to be heterodoxy, or wrong belief. Of this, there are numberless instances in ecclesiastical history; and we need only just take a transient view of the present christian world to perceive many more instances of it subsisting at this day. What is orthodoxy at Constantinople, is heterodoxy or heresy at Rome; what is orthodoxy at Rome, is heterodoxy at Geneva, London, and many other places: what was orthodoxy here, in the reign of Edward VI., became heresy in the reign of his sister Mary; and in Queen Elizabeth's time things changed their names again. Various was the fate of these poor words in the reigns of our succeeding kings, as the currents of Calvinism, Arminianism, and Popery, ebbed and flowed. So uncertain and fluctuating a thing is orthodoxy: to-day it consists in one set of principles, to-morrow in another. Were the words orthodoxy, heterodoxy, and heresy, employed, as they might, in distinguishing virtue from vice, and good from evil, they would admit of no variation, and be for ever taken in the same sense; but as they are used to denote opinions concerning the most incomprehensible subjects, no wonder that their meaning should be so often mistaken, and occasion so many endless and bitter disputes.—*Rev. R. Robinson.*

THE HOP FLY.

[*Aphis Humuli.*]

THE cultivation and utility of the Hop-plant we have described at some length in the first volume of this work;* but as its productiveness so much depends upon the visits of a little insect, which is well known to hop-growers under the name of the *Hop-fly*, we think it will not be uninteresting to give our readers some description of the growth and nature of this destructive animal, and at the same time particularize a few of its greatest enemies, who befriend the planter by destroying them.

As the Hop-plant requires a particular soil to become luxuriant and fruitful, its culture is extended to a few of our counties only: the principal of which are Kent, Sussex, Surrey, Worcester, and Hereford, where it is reared to the greatest extent, and to the most advantage.† Those grown at Farnham, in Surrey, are considered to be of the best quality, and realize the highest price.

The produce of the Hop is usually calculated by the amount of duty it affords to the revenue, which is charged at 18s. 8d. for every cwt. or 2d. per lb.; and each season realizes more or less than the preceding, according as the weather has been congenial, and the depredations of the *Hop-fly* have been extensive. Most of the hops are consumed in our own country, the quantity exported being comparatively trifling: taking the produce of the year 1833, which amounted to 32,747,301 lbs. we can convey some notion of its extent by shewing that the quantity exported in the same year amounted only to 1,662,003 lbs.‡ Having made these few preliminary observations, we will now proceed to describe the *Hop-fly*.

This devouring insect makes its first appearance in the hop-garden in the spring, between the 10th and 30th day of May, usually about the 12th; and what is more remarkable, it *generally* appears on the same day in every hop district, however distant they may be from one another. At first it is in a winged state,—a solitary fly settling here and there on the under side of the young leaves. When the weather is warm, with mild rains during the last twenty days of May, these flies produce young ones, which are very small, and are called *deposit* or *knits*: with astonishing rapidity these knits become in a few days green *lice*—a larger form merely of the same animal. However, when the weather in May

* See "Guide to Knowledge," Vol. I. pp. 625 and 639.

† The entire land in England and Wales applied to the cultivation of hops, in the year 1833, we learn from Parliamentary documents, amounted to 49,187½ acres, which is the sum of the following amounts in each Excise district:—

District.	Acres.	District.	Acres.
Barnstaple (Devon)	8½	Oxford	10
Bedford	26	Plymouth (Devon)	4
Bristol	4	Reading (Berks)	7½
Cambridge	4	Rochester (Kent)	12,566½
Canterbury (Kent)	8,641¼	Sarum (Wilts)	1,018½
Chester	¾	Salop	3
Cornwall	4½	Stafford	½
Derby	139	Stainbridge	702½
Dorset	19	Suffolk	148½
Essex	378¾	Surrey	13¾
Exeter (Devon)	19	Sussex	9,179½
Gloucester	7½	Uxbridge (Middlesex) . . .	7
Grantham (Lincoln)	29	Wales (East)	¾
Hants	1,386½	— (Middle)	129
Hereford	12,071	— (West)	¼
Isle of Wight	1	Wellington (Shropshire) . .	16
Lincoln	552½	Worcester	2,087¾
Northampton	1¼		

Total Acres 49,187½

‡ The largest quantities of hops exported in 1833, were to Hamburgh, 875,193 lbs.; Havre, 126,360 lbs.; Calais, 122,752 lbs.; New South Wales and Van Dieman's Land, 93,821 lbs.; Elsinore, 58,559 lbs.; Rotterdam, 58,109 lbs.; Trieste, 56,824 lbs.; Ostend, 43,882 lbs.

has been dry, cold, and windy, the *Hop-fly* has been frequently known to leave the plant and entirely disappear, even after remaining several days : while tarrying, it showed very evident signs of being uneasy, continually crawling about on the upper as well as the under side of the leaves, and on its departure leaving no deposit whatever.

As soon as the little creatures are born, they plunge their tube-like mouths into the leaf of the hop, and begin with voracious eagerness to suck away the sap. In this position they remain quite stationary, but gradually increasing in size for about ten days ; when each individual begins bringing forth young ones, which it continues to do at the rate of from eighteen to twenty-five per day all the remainder of its life. The parent still continues growing ; and the author, when in the neighbourhood of Tunbridge, has frequently observed the host of young ones who have fastened themselves close by their respective parents, convey to his eye some resemblance to a flock of sheep, with here and there a large ox or two scattered among them. If the weather continues warm and moist, these insects increase so fast as completely to cover the plant, and deprive it of life, themselves frequently perishing with it. It is seldom, until the approach of September, that many of the hop-flies attain the winged state : they then take flight over the country, floating in the sunbeams ; and when tired of the sport, seek a safe winter habitation beneath the bark of trees, shrivelled leaves, the cracks of hop-poles, and a thousand other secure hiding places impervious to our vision and curiosity ; where, after producing cocoons, which are a kind of chrysalis enveloped in a fibrous web, and which remain torpid during the winter, they die.

The Hop-fly is eagerly sought as food by various other insects ; which, though they consume immense numbers, seem to cause no sensible diminution in their countless myriads. The principal enemy of the Hop-fly is a singular looking creature, something like a fat lizard ; it feeds on them most voraciously, a single individual devouring forty or fifty in the course of a day : it turns to the common lady-bird or lady-cow, a pretty little beetle, which always preys in the same way.

Another enemy of the Hop-fly is a green ungainly-looking grub, without legs, which lays flat on the surface of the leaf, and stretches out its neck just like a leech to touch one of the hop-flies ; directly it feels one it seizes it in its teeth, and holds it up in the air, till by sucking all its juices, it has become a mere empty skin.

This curious creature turns to a fly, which has a body banded with different colours, and which in summer may be often observed under trees, and about flowers, standing quite still in the air, as though asleep, yet, if you try to catch it, darting off like an arrow : the fly is called *Syrphus balteatus*.

A third enemy of the Hop-flies has six legs, and very large, strong curved jaws, and is a most ferocious looking animal, frequently parading about a leaf, covered with the skins of the hop-flies which he has destroyed : this fierce creature turns to a very beautiful fly, with four reticulated wings, and two brilliant golden eyes.

A fourth enemy to the Hop-fly is a minute ichneumon, similar to that which feeds on the blight of the rose. The males of these ichneumons are very active, coursing and flying about the leaves, but the female is of less roving habits, and will generally be found particularly busy in providing for the establishment of her numerous progeny ; placed, at her birth, among myriads of Hop-flies, she has no dwelling to construct with artful industry, nor stores of food to collect by distant roving. With extended antennæ, and wings fluttering with desire, she paces leisurely amongst the defence-

less herd, and as soon as she has selected one by a light touch of her antennæ, she stops short at about her own length from it ; and rising on stiffened legs, bends her body under her breast till the end of it projects beyond her mouth ; then erecting her back by depressing the hinder part, she simultaneously makes a plunge forward with the body, which is then extraordinarily lengthened, and, by a momentary touch, deposits an egg on the under side of the Hop-fly, near its tail. The Hop-fly will sometimes struggle violently, so as to discompose the ichneumon ; but being anchored by its sucker plunged into the bark of the leaf, it can make no effectual attempt to elude the deadly weapon : should the Hop-fly, however, be unattached and wandering at large, the ichneumon sensible of its ability to disengage itself from her assault, shews great activity, by traversing round it in the attitude of attack, till she can surprise it in the side. The delicate sense of the antennæ seems to warn the ichneumon where a germ has been already deposited, as she will pass by those insects which have been stung some days before ; indeed, there is never found more than a single grub in an individual : when the inside of the Hop-fly is consumed by the grub of the ichneumon, it will be found separate from its fellows, motionless, and usually on the upper side of the leaf, to which it is attached by some viscid exudation.

The Hop-fly now appears distended, and of an opaque hazel or lighter tint ; if opened, the full fed grub of the ichneumon will be discovered doubled up and filling the cavity with its head next the tail of the hop-fly : in a short time the parts of the perfect insect are developed in the same position, the integuments of the grub, which was its prior-state, being doubled up below it in black grains : it spins no cocoon, being adequately protected by the indurated skin of its victim. A few days are sufficient to give consistence to its parts ; and while the new-risen sun is yet glistening in the early dews, the winged insect, by a push of its head, detaches the latter rings of its case, which separate in the form of a circular lid, often springing back to close the orifice after the inhabitant has gone forth, born in the maturity of her energies and instincts to renew the circle of existence.

The Hop-fly is characterized by a soft oval body, a small head, semi-circular eyes, antennæ of seven joints, longer than the body, and a beak which arises from the under part of the head, between the fore-legs, and descends almost perpendicularly. The wings, when developed, are four in number, and the legs are very long and slender, compelling them, in consequence, to walk awkwardly. After their torpid existence in the shape of cocoons, or, as some erroneously call them, *eggs*, during the winter, the return of genial weather in the spring brings them into active life.

The Hop-fly, indeed all *aphides*, which appear in spring, it has been well ascertained by numerous experiments and continued observation, are exclusively females, no males being found till the autumn ; and these females are endowed with a fecundity almost incredible. M. Latreille says, one female during the summer months will produce about twenty-five a day, and M. Reaumur calculated that one Hop-fly, or other *aphis*, may be the progenitor, during its life, of the enormous number of 5,904,900,000 descendants. It is not necessary for the young female *aphides* produced during summer to pair with a male, which indeed would be impossible, as no males are then to be found ; yet these females go on producing each their average number of twenty-five a day of living young ones, all of which become in a short time as fertile as their parent.

This is a circumstance so different from any thing known amongst other animals, and altogether so extraordinary, that it could not be credited had it not been proved beyond all contra-

diction by the careful experiments suggested by Reaumur, of the French academicians, which may be seen at length. The result was, that nine generations were obtained without pairing in the course of three months. A kind of moisture on the hop leaves, which is termed *honey-dew*, is simply the excrement, or a sweet viscid fluid ejected by the aphid through a pair of projecting tubes situated in the abdomen of the insect.

The varieties of the *aphis*, or, as it is commonly called, the *plant-louse*, are immense; there being almost as many as there are different sorts of vegetable products. Naturalists distinguish them by the generic name *aphis*, which in the plural is *aphides*; and by the name of the plant upon which as parasites they live. Thus the hop-fly is *aphis humuli*; the bean-dolphin, the *aphis fabæ*; that on the rose-tree, the *aphis rosæ*; that on the cabbage, the *aphis brassicæ*; that on the oak, the *aphis quercus*, &c. &c.

THE INHABITANTS OF INDIA.

(Continued from page 95.)

LIKE all other pagan nations, the Indians had two distinct classes of believers; namely, the populace and the philosophers. The former, in the case of the Indians, believed in Vishnu, or Vishnou, and Brahma; and they had a vague and incorrect notion of the immortality of the soul. It is difficult, perhaps impossible, to ascertain, with even tolerable exactitude, what specific notion they had of the soul; but it is quite certain that they believed that the sentient principle was distinct from the body, and did not die with it, but, on the cessation of the body's life, passed forthwith into some other body. This doctrine of Metempsychosis* had the double effect of making those who believed in it just to man and scrupulously humane to the inferior animals; for its believers did not imagine that the soul of a man must necessarily pass into the body of another man, or the soul of a woman into the body of another woman. Contrariwise, they believed, that on quitting the mortal frame, the immortal soul became nobly or basely lodged, according to the deeds, during his life, of the deceased man; and they dreaded that Brahma, or Vishnou, would cause their souls to pass into the bodies of some loathsome reptiles or ignoble beasts, if their conduct was contrary to the laws of their superstition, or to the eternal and every where similar laws of justice and humanity.

It was this consideration which made the doctrine of Metempsychosis of considerable effect in restraining them from injustice to one another, and from all actions likely to draw down the dreaded penalty upon them. But its influence extended still farther. Every one of them was conscious that his own ancestors were quite as likely to have incurred this penalty, as any other of the worshippers of Brahma; in which case, no animal, however hateful, and no reptile, however contemptible or disgusting, could with any certainty be predicated not to be the depository of the soul of one of their ancestors, or deceased friends. On the other hand, while they feared that their ancestors' souls *might* possibly be lodged in the body of some hateful and vile creature, they *wished*, with that strong feeling of affection which is common to all mankind, whether

civilized or savage, that the contrary might be the fact; and consequently, they were humane even to the hateful and filthy part of the animal world, and exceedingly kind and affectionate to the nobler and more useful members of it.

We have already ascribed the early civilization of the Indians, in part, at least, to the great facility with which they procured a sufficiency of vegetable food. The very nature of the climate did much towards rendering them indifferent, if not absolutely averse, to the use of animal diet; but probably climate alone would not have sufficed to perpetuate their abstemiousness. But when to the effects of a burning sun the still more powerful effects of a firmly believed, and, to untutored minds, a very plausible superstition were added, luxurious appetite itself became subdued and powerless. With a general mildness of temperament, and cautious humanity of heart, impressed upon them thus from various sources, it was impossible for the Indians not to arrive much earlier than nations of hotter and more ferocious minds at an extensive degree of civilization. The man who scrupled to slay an animal, lest he should thus commit violence upon a body containing the soul of a remote and long deceased ancestor, and who believed that injustice during his life would cause his soul to be loathsomely lodged after his decease, was not very likely to injure his living fellow-creatures in mere wantonness; and, as we have already shown, nothing but mere wantonness could induce men so favoured by nature to invade the property, or assail the rights, of each other. Accordingly, we find that the only blood which was shed in India, was chargeable on the injustice of invaders, to whom the mild and just inhabitants unhappily never opposed more than a feeble and ineffectual resistance. Even at the present time, the *real* Indians are among the most gentle, peaceable, and scrupulously just, of all beings.

The philosophers of India, like Confucius and his disciples in China, left the multitude in possession of their superstitions. They perceived that they tended to make them moral; and though their philosophy, imperfect and superstitious as even it was, being itself no more than a corruption of traditional truth, taught them that many of the doctrines which the Brahmins taught and the people believed, were as absurd as many of the ceremonies founded upon those doctrines were useless, and therefore unnecessary; yet they wisely conceived that to undeceive them upon those points, which were unimportant, might cause them to swerve from those principles, which though widely erring from even the imperfect truths of tradition, were productive of the most general and important moral benefits.

The belief of the Brahmins was, like that of Cicero, loftier, and nearer to truth, than the superstitions of which they were the public and authoritative teachers and ministers. But it was necessarily imperfect. They were destitute of that volume which the meanest peasant in our happier times and country possesses; and which it is as much the duty, as, happily, it is the inclination of Christians, to distribute among those nations which are even yet wandering in error.

A report confidentially transmitted from one to one, is like a drop of water at the top of a house; it descends but from tile to tile, yet at last makes its way to the gutter, and then is involved in the general stream.—*Strabo*.

* The transmigration of souls.

SENTIMENTS.

CUNNING differs from wisdom as twilight from open day. He that walks in the sunshine goes boldly forward by the nearest way; he sees that when the path is straight and even he may proceed in security, and when it is rough and crooked, he easily complies with the turns, and avoids the obstructions. But the traveller in the dusk fears more as he sees less; he knows there may be danger, and therefore suspects that he is never safe; tries every step before he fixes his foot, and shrinks at every noise, lest violence should approach him. Cunning discovers little at a time, and has no other means of certainty than multiplication of stratagems and superfluity of suspicion. Yet men thus narrow by nature, and mean by art, are sometimes able to rise by the mis-carriages of bravery and the openness of integrity; and by watching failures, and snatching opportunities, obtain advantages which belong properly to higher characters.—*Dr. Johnson.*

ANGER.—The maxim which Periander of Corinth, one of the seven sages of Greece, left as a memorial of his knowledge and benevolence, was, "Be master of your anger." He considered anger as the great disturber of human life, the chief enemy both of public happiness and private tranquillity; and thought he could not lay on posterity a stronger obligation to reverence his memory than by leaving them a salutary caution against this outrageous passion. Pride is undoubtedly the origin of anger; but pride, like every other passion, if it once breaks loose from reason, counteracts its own purposes. A passionate man, upon the review of his day, will have very few gratifications to offer to his pride when he has considered how his outrages were caused, why they were borne, and in what they are likely to end at last.

ABILITY.—It was well observed by Pythagoras that ability and necessity dwell near each other.

Literary Review.

13. *Topography of Thebes, and General View of Egypt.* By J. G. WILKINSON, Esq. 8vo. Pp. 595. London: Murray.

THIS elaborate production respecting a country so interesting to modern science abounds with much valuable information: and the style of writing in which the facts and circumstances are conveyed, impress upon the reader, by its perspicuity and decisive character, a quiet acquiescence and belief in its truth and accuracy. Mr. Wilkinson has displayed great talent, and employed deep research, to bring to light the varied subjects that have here occupied his patient investigation and profound judgment. The first part of his instructive volume is confined to the elucidation of the "Topography of Egyptian Thebes," and then proceeds to give "a General View of Egypt," which the title of the book expresses as "being a short Account of the Principal Objects worthy of notice in the Valley of the Nile:" to which is added, "Remarks on the Manners and Customs of the Ancient Egyptians, and the Productions of the Country." To render the work further valuable, not only as a book of amusement and reference, but even as a "Traveller's Companion," there is in the Appendix a chapter on "things required for Travelling in Egypt, with general instructions to those who visit it; and a useful Vocabulary of the vulgar Arabic."

We will now bring under our readers' notice one or two extracts.

To such an extent are the exactions of the inferior governors carried in Upper Egypt, that if the government demand for one quarter of butter is to be raised from the peasants, they do not fail to increase it to two, or one and a half, the surplus being appropriated by and divided between them: and the nominal ardeb of seed, reduced to three quarters, must be received without a murmur, and returned in full to the Efendee of the government granary. . . . But the greatest injustice is this, that the honest man who has paid his arrears, is obliged, if he has still any produce in hand, to make up for the debt of some other person, on whom an obligatory check is given by the government for the amount; and the helpless peasant, unable to procure from the defaulter, or his dishonest neighbour, what the fear of a Turkish ruler has not succeeded in eliciting, remains for ever deprived of that right which he can have no hopes of obtaining.

* * Besides the injury these men inflict on the revenues of the pasha, the total want of encouragement for the peasant to improve the agricultural productions of the country, is another material consideration. Trees are seldom or never reared, or if some few are planted in the vicinity of the large towns, no inducement is held out to attend to their culture, and the despondent fellah wilfully neglects them to avoid their additional tax.

Leaving this unenviable and miserable state of thralldom, let us advert to the author's Account of certain Egyptian manners.

Their mode of salutation, says Herodotus, was not by words, but by a low bow, the hands being brought downwards to the knee. But this depended, of course, on the person saluted; and besides genuflection and kissing the hand, it was a common practice to prostrate themselves to the ground before their monarchs and persons of rank. The distinction, indeed, of castes and classes was arbitrarily maintained; and the constant recourse to corporal punishment proves the great power which was given to a master over the domestics of his household. Nor was the lash inflicted from the mere impulse of momentary anger; the offender was sentenced to a stated number of stripes, according to the offence he had committed, and was forcibly thrown upon the ground, and held while the punishment was inflicted. Men, boys, and women, were all subject to the stick; and for more serious offences, imprisonment and deprivation of food, even for three days, were adjudged to the culprit. Diodorus relates a singular custom regarding theft. They who followed this occupation gave in their names to the chief of the robbers, and into his hands they were required to deposit the objects they stole. The plaintiff therefore repaired to his house and stated the things he had lost, with the time and day when they were stolen, and having paid a quarter of their value, recovered all the property that belonged to him. Adulterers of money, forgers of seals, scribes who kept false accounts, defrauded the public, or introduced another man's signature; and those who made use of unjust weights or measures, were condemned to lose both hands; and the traitor who held communication with an enemy was punished by the excision of his tongue. Their treatment of women, in private life, was evidently very superior to that at present adopted in the East; but their laws concerning them rather call to mind the customs of barbarous countries than the institutions of a wise legislature.

And towards the conclusion of the volume, Mr. Wilkinson offers a few observations respecting the proposed steam communication with India, by the route of the Red Sea.

Having perused this work with much pleasure and satisfaction we now must quit it, but not without bestowing on it our well merited eulogy and recommendation.

14. *Paternal Advice, Chiefly to Young Men.* New Edition. 48mo. Pp. 158. London: Groombridge.

THIS is a very useful and pretty little volume, of a religious tendency, published for the benefit of youth; and containing such advice, the author observes, "as every father wishing the good of his son, on seeing him

advance to man's estate and entering into life, will be desirous and anxious to give." Interspersed among the precepts, counsels, and aphoristic sentiments of parental solicitude, are given examples in short lives of many eminent and divine individuals, with one of which, the Venerable Bede, we conclude our notice.

BEDE.

This venerable man (he was surnamed the *Venerable*) was born in the county of Durham, somewhere near Wearmouth, about the year 673. In his youth he was devoted to the study of the Holy Scriptures, and in composing works of a literary and religious nature. He attained great proficiency in Greek and Hebrew, and made many scholars in that barbarous age. Perhaps no man of his time gained more reputation and friends than Bede. It is said that King Alfred thought so highly of his "English Ecclesiastical History," that he translated it from the original Latin into the Saxon language, and thereby greatly extended its celebrity. The last days of this good man were embittered, in the midst of other infirmities, with a difficulty of breathing, and yet we read of him as being serene and cheerful—his night spent in prayer and thanksgiving—his morning in making the Scriptures his study, and supplicating his God.

15. *A Treatise on the Conjugation of French Verbs, &c.* By M. C. V. MARTIN, Professor of the French Language. 8vo. Pp. 215. London: Hamilton and Co.; Longman and Co. Kidderminster: Brough.

AT a time like the present, when the French language is so extensively diffused, a work, having for its object the elucidation of so important a branch of Grammar as the Conjugation of the French Verbs, cannot fail to be acceptable; and in regard to the one before us, we can safely say that the learner will derive much instruction from its perusal, and much satisfaction in studying the idiomatic phrases that are appended to it.

TO CORRESPONDENTS.

"C. W. V." cannot expect to see more than the last page of our periodical devoted to Reviews; and generally speaking, they will seldom exceed two-thirds.

We are obliged to "Alpha" for his good opinion, but he must recollect the story of the Painter and his Picture.

J. S. C." is not aware, perhaps, that by acceding to his wishes, we subject ourselves to the advertisement duty.

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Rembrandt in his Study. The Portrait from a Picture by himself.

BIOGRAPHY OF REMBRANDT.

THE inspired productions of the pencil by the hand of genius have ever been the delight and admiration of every country in the world, of every season of life, and of every grade of civilized society. By the persevering efforts of human genius, painting offers to our eyes every thing which is most valuable in the universe. It presents to us the heroic deeds of ancient times; the facts, too, of modern history, with which we are more conversant; the objects that are distant from us, whether by extensive provinces or vast oceans; those even of daily occurrence: and it likewise beautifully preserves to us the resemblance of the parent we revere, the child we love, and the benefactor we

esteem. By his enviable skill, the painter can display at one view the varied scenes and tints of unbounded nature, and can delineate, with striking accuracy, the numerous effects that flow from the changeful passions of the human heart.

For these proud influences, the refinement of every era has been indebted to genius; but not to genius alone,—that exalted aptitude may become a weed from want of culture, or may droop in silent insignificance, and die from poverty and from neglect. It is to patronage, and more perhaps to the resistless force of *perseverance*, that we are indebted for painting, and all the other performances of human art.

It is by this that the quarry becomes a pyramid; that distant countries are united by canals and railroads; and that the produce of the mine becomes the circulating medium of vast empires. How important therefore is it, that those who would travel from the beaten paths of life,—would acquire a reputation superior to names hourly swept away by time among the offscourings of ambition and of fame,—should add to their reason and their spirit, and even to their genius, the irresistible power of *persisting in their purposes!*

Before us we have, in the subject of our biography, an individual named Paul Rembrandt van Rhyn, who is an astonishing instance of the effects of genius and the toils of perseverance in exalting an humble man to the very heights of fame and laudable renown, and whose name, among a few others, will continue to breathe the air of immortality so long as the astounding efforts of his skill are co-existent with the tastes and refinements of civilized society.

This painter was born at a mill, on the Rhine, near Leyden, in the year 1606. While a youth, he displayed such extraordinary talent for the arts of design, that his father, who was named Gerretsz, was induced to place him in the school, and under the tuition, of Van Zwanenburg, a noted painter of that time. Rembrandt remained under this professor about three years, and next was placed under the guidance of Lastman, a celebrated historical painter, with whom he continued but six months; and, for a similar length of time, subsequently studied under Pinas, from whom Rembrandt is said to have imbibed that effective style of contrasting light with shade, which so beautifully and pre-eminently distinguishes the offsprings of his pencil from those of contemporary masters.

Nature was the model of his application; and when he returned to his father's mill, his industry directed him to complete numerous designs, one of which, from its effectiveness, his friends induced him to carry to a noted connoisseur, then resident at the Hague. This individual was

so much struck with it, that, to the astonishment of the young limner, he offered him a hundred florins for it. Rembrandt now was enabled to entertain a pretty just estimate of his talents. In 1630 he settled himself in Amsterdam, and there his great genius procured him much employment both as a portrait and general painter. He opened a school, and obtained numerous pupils: but his avarice was so excessive, that he indulged his greediness for gain by touching up, with a few of his own free strokes, the copies his scholars had made of his designs, and usually sold them at prices equal to those he obtained for such as were entirely of his own execution. He likewise made numerous etchings in a very singular taste, consisting of what appeared random scratches, but so managed as to convey to the spectator a particularly striking effect. These he frequently altered, so as to multiply his original pieces, and by this means, also, augment his profits. His first style of painting had much of the neat delicate finish of Mieris and other Dutch masters; but this he changed for a manner directly opposite,—bold and forcible, with a vast body of colour, and here and there masses of dark shades relieved by bright lights;—the effect of which, at a near view, was coarseness and confusion, but at the proper distance beautifully mellow, and most harmonious. Indeed, Rembrandt was a perfect master of colouring, and perfectly understood all the magic of *chiaro-scuro*.* Bred in no school but the Dutch, and utterly despising every thing antique, his taste and ideas of grace and dignity were sorry specimens indeed; but he copied nature as he saw it with wonderful exactness and fidelity, and set it off with an art entirely his own. His studio was hung round with old dresses, armour, turbans, and the like, which he jocularly styled *his antiques*; and although he had a valuable collection of Italian prints and drawings, with copies of the remains of ancient art, it does not appear that he ever borrowed from them. The defects of his education were apparent from his incorrectness in drawing naked figures. Boasting once to the celebrated Vandyke that he had never been in Italy, that great artist replied, “I see it well!”

Rembrandt, in his manners, conformably to his origin, was rude, and could relish no company but that of persons like himself. He studied the grotesque figure of a Dutch peasant, or the servant of an inn, with as much application as the greatest masters of Italy would have studied the Apollo Belvidere, or the Venus de Medici. Fuseli, speaking of him, says, “Rembrandt was a meteor in art. He was undoubtedly a genius of the first class in whatever is not immediately related to form or taste. In spite of the most portentous deformity, and without considering the spell of his *chiaro-scuro*, such were his powers of nature, such the grandeur, pathos, or simplicity of his composition, from the most elevated or extensive arrangement to the meanest or most homely, that the most untutored and the best cultivated eye, plain common sense, and the most refined sensibility, dwell on them equally enthralled. He possessed the full empire of light and shade, and of all the

tints that float between them. He tinged his pencil with equal success in the cool of dawn, in the noontide ray, in the vivid flash, in evanescent twilight, and rendered darkness visible.” Rembrandt painted history, portrait, and landscape; and the productions of his genius in all its branches are highly valued. The manner of painting pursued by him in his study is very interesting. M. Descamps speaks of it in these words:—“Rembrandt’s manner of painting is a kind of magic. No artist knew better the effects of different colours mingled together, nor could better distinguish those which did not agree from those which did. He placed every tone in its place with so much exactness and harmony, that he needed not to mix them, and so destroy what may be termed the flower and freshness of the colours. He made the first draft of his pictures with great precision, and with a mixture of colours altogether particular. He proceeded on his first sketch with vigorous application, and sometimes loaded his lights with so great a quantity of colour, that he seemed to model rather than to paint. His workshop was occasionally made dark; and he received, through a hole, the light, which fell as he chose to direct it. On particular occasions, he placed behind his model a piece of cloth of the same colour with the ground he wanted; and this piece of cloth receiving the same ray which enlightened the head, marked the difference in a sensible manner, and allowed the painter the power of augmenting it according to his principles.”

Notwithstanding his great genius, want of economy, and the extravagant purchase of pictures, made him a bankrupt; and he secretly quitted Amsterdam to repair to the king of Sweden, who employed him a considerable time. At length he returned to Amsterdam, where he died, in 1674.

The etchings of this celebrated painter amount to about two hundred and eighty, and are among the most prized rarities of connoisseurs and collectors, who find exercise for all the fanciful curiosity of their pursuit in the variations which Rembrandt purposely introduced into his designs, to enhance their capricious value. Many of his portraits are also admirable, combining minute exactness with extraordinary force and animation; and most of his works have been copied and engraved by other artists, even by some of the present day.

CHESTNUT TREE. [*Castanea vesca*.]

IN a few weeks, when the daffodil and the sweet anemone shall have ceased to glitter at its feet, this monarch of the Italian landscape will put forth its leafy honours; and by the majesty of its widely spreading branches, and the varied brilliancy of its colours, invite a larger share of attention than its more humble but not less beautiful associates of the forest glade. But it is not only in the vernal, but in all other seasons, that it captivates the fancy of the picturesque botanist. In the summer months, no tree gives so much freshness to the avenues of a park, or the arid sides of a mountainous declivity; its leaves are intensely green, and their growth rapid and exuberant beyond parallel. Life seems to luxuriate in its boughs. The shadows which its projects are so ample and finely chequered with dancing sun-beams, that deer and sheep, who seem to have a taste in such matters, select it in preference to all others for the noon-tide *siesta*, or evening

* *Chiaro-scuro*, in painting, comprises the proper gradation of lights and shades on bodies placed on certain planes, and in certain positive lights, and is a science comprehending not only the mechanical action of light, shade, and reflexes, but of aerial perspective, the proportional force of colours, or of those qualities by which they apparently advance to or recede from the eye, and of their various degrees of transparency or opacity. It depends entirely on the painter’s imagination; who, if master of this branch of art, disposes his objects to receive such lights and shades as he proposes for his picture, and introduces such accidental circumstances of light, shade, vivid or opaque colours, as he reckons most advantageous to the whole.



Remains of the Tortworth Chestnut.

rumination. In the autumn, its leaves, beautiful in death, array themselves in every variety of yellow, the Chinese mourning colour; and, hanging gracefully round its large green clusters of nuts, form a charming variation to the flaming reds of the dying beech, and the pale and sickly greens of the planes and sycamores.

"E'en winter oft has seen it gay,
With fretted frost-work spangled o'er;
While pendants droop'd from every spray,
And crimson budlets told once more
That Spring would all its charms restore."

It does not, however, depend in that cheerless season upon "fretted frost-work" for its beauty; it is beautiful in itself, and, like all the works of nature, needs not, nor can it indeed receive, any adornment. The branches sweep boldly from the parent stem, which rises in good specimens to sixty or seventy feet in height, and is in itself a picture. The bark, which is plentiful, and of a soft structure, splits, as the trunk increases its diameter, into a number of reticulated forms, which, with the advance of years, become deeper, and assume a rich variety of brown tints. The great roots appear above the ground, and knot the adjacent surfaces into a number of picturesque forms. Beneath these the rabbit loves to burrow, and may be often seen tumbling somersets into his retreat; while the squirrel, in the angle of the branches above, finds a snug dormitory for his winter's repose.

Salvator Rosa, during his romantic sojourn in the mountains of the Abruzzi, so fully imbibed the various perfections of this magnificent tree, that they ever afterwards haunted his genius, and were introduced with powerful effect into all his best landscapes.

The chestnut tree is said to have been first brought to Europe from Sardis, in Asia Minor, by the Greeks, who called the fruit the Sardinian nut, and who considered it so valuable as an article of food, that they afterwards honoured it by the name of Jupiter's nut. From Greece it was imported into the Roman states; where, finding a congenial soil and climate, it reached a perfection which it maintains to this day. Pliny mentions eight kinds of chestnuts as being known to the Romans in his time, and says they were ground into meal and made into bread by the poor; but when roasted, he adds, "they are pleasanter and better food."

The Romans called them by their present generic appellation—*Castanea*, after a city of that name in the territory of Thessaly, from whence they first procured them, and where they were grown in great abundance by the Greeks.

By the Romans the tree was brought to Britain, where it spread itself so rapidly, that its introduction has been questioned by many botanists, who maintain it to be an aboriginal inhabitant of the island. Ducarel and Withering are of that opinion, and found their arguments upon the fact, that many of our oldest buildings are framed of its timber;

and that a deed of gift still exists, in which Henry II. grants a tithe of all his chestnuts in the forest of Dean for the support of Flexley Abbey. The beautiful roof of Westminster Hall is made of chestnut. But these examples prove nothing more than its early date, and leave the fact of its introduction untouched. We have seen that in Rome its farinaceous nuts were used as a substitute for bread; and as the Romans remained masters of this country for nearly four hundred years, we are quite safe in concluding, that among the many beneficent acts and agricultural improvements for which we stand indebted to them, the transplanting of the chestnut is not to be omitted.

Chestnuts are the common, and in some places, almost the only food of the poor inhabitants. In the Appennines of Italy, in Savoy, and in some parts of the south of France, they are used to this extent. They prepare them in a variety of ways,—roasted, boiled, in the form of bread, puddings, and sometimes, for great occasions, in articles of elegant confectionary, for which the flour of the nuts, by its lightness, is well adapted. They afford a great part of the food of the peasants in the mountains of Madeira. In Spain also they are extensively used as food.

With us they are seldom employed for culinary purposes, but are usually given to hogs and deer. They are nevertheless well worthy of adoption, and when stewed, are said to form an agreeable accompaniment to salt fish.

The timber is of equal value with the best oak, and for many purposes far exceeds it; to which we may add, that it grows twice as fast. This wood is preferable for making wine or liquor casks, as it imparts no taste to the contents, and has the property of maintaining its bulk constantly without shrinking or swelling, which most other timber is not apt to do, and which often causes casks to burst. It has also the quality of lasting longer than elm, or any other timber, when used for water-pipes, or other purposes under ground; and is as durable as oak for gates, posts, and the like.

The chestnut attains to so great an age, owing to the vigour of its sap-wood and the looseness of its bark, that it is scarcely possible to define its limits. At Tortworth, in Gloucestershire, are the flourishing remains of a chestnut tree (*see Engraving*), which at the present time measures fifty-two feet in circumference, and is proved to have stood there in 1150, *when it was so remarkable for size as to have been entitled THE GREAT CHESTNUT OF TORTWORTH*. It fixes the boundary of a manor, and is regarded with as much reverence as the "Gospel Oaks," which in so many of our villages answer the same purpose. Mr. Marsham reckons, with great probability, that this tree is upwards of 1,100 years old.

The remains of very old decayed chestnut trees may be seen in the Forest of Dean, Enfield Chase, and in many parts of Kent. At Hitchin Priory, in Hertfordshire, a tree stood, which in 1789, measured forty-two feet, at five feet from the ground; and though it had suffered much from internal decay, still put forth leaves in great strength and plenty. But all these examples vanish in importance before the mighty chestnut which flourishes on the cindery sides of Mount Etna. This is perhaps the most extraordinary tree in the Old World. It is called by the Italians the "*Castagno de cento cavalli*," or the chestnut tree of a hundred horses, in allusion to a traditionary tale, which states that Jane, queen of Arragon, on her voyage from

Spain to Naples, landed in Sicily for the purpose of visiting Mount Etna, and that being overtaken by a storm, she and her hundred attendants on horseback found shelter beneath the impervious canopy of its branches. Brydone visited it in 1770, and M. Houel in 1784, and have published a very minute detail of its history and appearance. The amount of their observations are, that its antiquity exceeds the earliest records of the island; that its trunk consists of five mighty limbs joined at the base, measuring together one hundred and sixty feet round; and that it still bears very luxuriant foliage, and an abundance of nuts.

There are four varieties of the common species;—1. that which we have described, called by Linnæus, *Fagus castanea*; 2. the intermediate (*media*); 3. the asplenium, or spleenwort-leaved (*asplenifolia*); and 4. the golden-leaved (*foliis aurcis*). There are also three foreign species: 1. the American (*Americana*); 2. the Chinese (*Chinensis*); and 3. the dwarf (*pumila*), a native of North America. The latter is about twelve feet high; and the others varying between fifty and sixty feet. They all belong to the natural family of Amentaceæ; and to the Linnæan class, Monœcia, and order, Polyandria. They flower in May and June; and in their curious structure offer to the botanist, the theologian, and the reflecting youth, a highly instructive exhibition of the Creator's wisdom; while to the painter, the poet, and the man of taste, they present, in their graceful profusion, an object of peculiar and unrivalled beauty. The male flowers are arranged in the form of a loose pendulous catkin, which starts from the angle made by the leaf stalk with the branch, called in botanical language the *axilla*, and the catkin is thence said to be axillary. About twenty or more flowers compose a moderately sized catkin. The flowers are without blossoms, having a calyx only, which is cut at the top into six clefts, and carries from five to twenty longish filaments. The anthers at the end of these are large in proportion to their size, and emit a great quantity of pollen. The female flowers are also axillary, but are so altogether unlike what is popularly conceived of a flower, that our little friends will at first find some difficulty in recognizing them under such a name. They look like little balls, stuck over on the outside with sharp thorns, in the manner of a sea-egg (*Echinus*) which commonly ornaments our mantel-pieces. This prickly ball is called by botanists an *involucrum*, and from the circumstance of being covered with thorns, is said to be *thickly muricated*. It serves the purpose of a calyx, and encloses three florets. Each of these florets consists of a little urn-shaped cup, in the bottom of which is an ovary or germ of the future nuts, which bears on its summit six awl-shaped styles. One only of these germs reaches perfection. It is six celled, and contains the embryo of six nuts; but in the course of their growth four of them perish, and two only reach perfection. These are the chestnuts, which, when fully ripe, burst from their thorny enclosure, and fall to the ground.

In many places, the gathering of chestnuts is an event of much joy to the young and superannuated in the neighbourhoods. In Greenwich park such a scene may be witnessed. In October, the keepers thresh the nuts from the trees with long poles; and after collecting a portion of the best for the king's deer, leave the remainder to be scrambled for by the pensioners, who perform the business with amusing alacrity.

THE BAMBOO.

THIS is an Indian plant of the reed kind. It has several shoots, much larger than our ordinary reeds, which are knotty, and separated from space to space by joints. The importance of this plant to vast regions of the East may well excuse our dwelling on some modes of its culture, and its peculiarities.

Botanists have generally ranked it with other reeds. Linnæus, in the "*Systema Naturæ*," describes two species under the genus *bambusa*, which is distinguished by scales, three, covering the spikelets, which are about five-flowered; calyx, none; corolla, a two-valved glume; style, bifid; seed, one. But Louriero, who saw it in its own climate, characterises it as having flowers with six stamina; panicle diffused, with imbricate spikelets; branches of the culm, spiny; calyx, one-flowered. We shall not discuss its minute botanical characters, as it is the practical cultivation and great utility of the plant to which we would engage the reader's attention.

A native of the warmer climates only, though often growing luxuriously between the tropics, the bamboo rises to the height of forty, sixty, or even eighty feet, with a slender, hollow, shining stem. Many, however, are only twelve or fifteen feet high; and those which attain the greatest height here mentioned are rather to be viewed as overgrown. The stem is exceedingly slender—sometimes not exceeding the thickness of five inches—in those which are fifty feet high; in others, being fifteen or eighteen in diameter; the whole divided into joints, separated by knots, or internodes, between which are distances varying from a few inches to several feet. Alternate branches spring from the base to the top, which, with the pointed leaves of the knots, give the whole tree a most elegant appearance.

It will sometimes vegetate three or four inches in a single day, and it has been seen to rise twenty feet, and as thick as a man's wrist, in five or six weeks. Its full dimensions are frequently, therefore, attained in a year; and the only change afterwards is greater thickness, and induration of the wood. Towards the root it is solid and compact; and the cells of the stem become wider in proportion as they ascend. In Malabar, it is said to bear fruit when fifteen years old, and that it then dies.

There seem to be several species which have not yet been recognized by systematic botanists. An observer of the bamboos of China in general, considers that there are nine species, or varieties; and an observer of those in Cochin China admits of eight. The former judges the difference to consist, first, in the size and height, for there is here the greatest disparity in those that are full grown. Secondly, the distance of the knots, or length of joint, which, in certain species of full-grown bamboo, is only four inches, while in others, long and slender, they are nine or ten feet asunder. Thirdly, in the colour of the wood, which is whitish, yellow, brown, pale blue, or speckled. Fourthly, in the size or form of the knots, some swelling out from the stem above and below; some encircling it like a cord; and those of the most singular kind, which do not penetrate within to interrupt the tubular part of the bamboo. Fifthly, by the surface and figure of the internodes being channelled, or covered with tubercles; and a kind is said to exist, called the square bamboo. The varnished surface is also of different quality. Sixthly, the substance and thickness of the wood, which, varying without any relation to the dimensions of

the plant, afford sufficient characteristics for constituting a species. The wood is either soft and tender, or very hard, and of great strength; and the stem is either very thin and hollow, or almost totally filled up, and solid, like other trees. But elsewhere, in Bangalore, for example, this solidity is not ascribed to the difference of species, but to the tardiness of its growth in stony places. Seventhly, it is said that there are bamboos entirely devoid of branches, however old they may be; while others protrude as they spring from the earth. Eighthly, there is a great difference both in the hue and figure of the leaves, as also in their size; they are blueish, ash-coloured, reddish, or mottled. Some are so large as to make good fans. Ninthly, the roots, though knotty, are found in one species to penetrate into the earth like a tuft of filaments.

This plant is to be found growing wild in most parts of the East; it is regularly cultivated in the more genial climes, and preserved in others in green-houses, &c. It succeeds best in low, sheltered, spongy grounds; but the immediate contact of the root with water is said to be fatal to it. They propagate it by shoots, deposited in pits at the close of autumn, or commencement of winter, eighteen inches or two feet deep; and if it be designed to obtain bamboos of considerable size, the scions are cut over as they spring up. It flourishes best in large plantations, as the plants yield considerable shelter to each other in their progress. As they run from the ground, they are propped up and trained with rods of a proper height, and, if complete plants, are cut over, in order to obtain suitable shoots, which are chiefly sought after. This also makes the root strike out, and take a secure hold of the ground. The plantation, in rainy seasons, is generally drained by a ditch, as it decays very fast in too damp grounds. To obtain good bamboos, it is not uncommon to take a vigorous root, with firm wood, and transplant it, leaving only four or five inches above the joint next the ground. The cavity is then filled with a mixture of horse-litter and sulphur. Sometimes the shoots are destroyed at an early stage, during three successive years; and those springing in the fourth are then said to resemble the parent tree.

The earliest shoots of this plant are edible, and are served up at table in autumn like asparagus; in a similar manner with that vegetable, also, they are earthed over to keep them: they are also salted, and eaten with rice. A fluid of grateful taste and odour is yielded from the hollow joints as the plants grow up, affording an agreeable beverage. In its further progress, this becomes a concrete substance, called *tabaxir*, or *tabascheer*, highly valued for its medicinal properties, and, apparently, a species of siliceous earth. It resists the impression of acids, is indestructible by fire, and, with alkalies, forms a transparent glass. A decoction of the leaves of the bamboo is recommended in the East for coughs and a sore throat; the bark for fever and vomiting; the buds as a diuretic; and a compound of the root with tobacco-leaves, betel-nut, and oil, forms an efficacious ointment. Many of the poorer classes in the most populous countries subsist entirely upon it, in times of scarcity. The Hindoos eat its seeds roasted, mixed with honey as a delicacy, equal quantities of each being put into a hollow joint, coated externally with clay.

From the copious draught which a joint of the bamboo naturally yields, mankind are taught its use as a vessel for carrying water, and in some places no other bucket is employed. Many Eastern nations build their houses solely of the bamboo wood; entire, it forms their posts, or

columns; split up, it serves for floors or rafters; or, interwoven in lattice work, it is employed for the sides of rooms, admitting light and air. The roof is sometimes, also, of bamboo, for which two of its species are ascribed to be especially adapted; and, when split, which is accomplished with the greatest ease, it can be formed into lath or planks. Vessels of all kinds are framed out of it likewise, and fitted for sea. The hull is taken from the stem; and some of the strongest planks are selected for masts of boats. In Bengal, a boat of four or five tons may be furnished with both mast and yard from the same bamboo, at the cost of threepence; and the masts of larger vessels are sometimes formed by the union of several bamboos built up and joined. Those of considerable dimensions are used in the higher yards of larger ships, for which, by their great strength and lightness, they are well adapted. This important plant is also employed in the construction of agricultural and domestic implements; and in all materials and implements required in fishery, with the exception of hooks and nets. In Thibet, bows are made of it, by the union of two pieces with many bands; and in the same country, also, it is employed for pipes, in transmitting water, for several miles, to reservoirs or gardens. A single joint is sufficiently capacious to serve as a bucket; and in some places no other is used. In the south-west of Asia, a species of slender growth supplies writing pens or reeds. Baskets, cages, hats, and various ornamental articles, are to be added to the catalogue of its extensive uses. By a particular process in bruising and steeping the wood, or bark, also, a paste is procured that is made into paper. In short, as it has justly been observed, from its very origin until its decay, it never ceases to produce something beneficial,—all that composes a bamboo is profitable, of whatever species it may be. The artists of China have each made their choice, and, in the works they produce, show the advantage they have derived from it. Its uses are so numerous, so various, and so beneficial, that it is impossible to conceive how China could now dispense with this precious reed. It is no exaggeration to affirm, that the mines of this vast empire are of less importance to it than the possession of the bamboo.

VARIETIES.

RAIN AND CLOUDS.—It is scarcely possible to form an adequate idea of the quantity of water which, in the state of cloud or vapour, is always ascending into the atmosphere, and floating in it above us.

The Mediterranean affords a striking instance of the quantity of water that ascends into the air above us. "The Nile, the Po, the Rhone, the Ebro, the Danube, the Nieper, the Don, and many other rivers of smaller extent, empty themselves into the Mediterranean, or into the seas connected with it, and constituting a part of this great inland ocean. Yet, notwithstanding this great and regular influx of water, the sea *does not increase in size*, though a constant current sets in from the Atlantic through the Straits of Gibraltar. An evident proof that the *natural evaporation* from the surface of the Mediterranean is more than sufficient to dissipate all the water thrown into it from a vast tract of Europe and Africa."

Dr. Thompson justly reflects: "Let us suppose for a moment that this spontaneous evaporation were to cease, and let us contemplate the consequences. No more rain or dew could fall; the springs would cease to flow; the rivers would be dried up. The whole water in the globe would be accumulated in the ocean; the

earth would become dry and parched; vegetables, being deprived of moisture, could no longer grow; the cattle and beasts of every kind would lack their usual food; man himself would perish. The earth would become a dull, inanimate, sterile mass, without any vegetables to embellish its surface, or any living creature to wander through its frightful deserts.

"We may add, that the whole water of the globe accumulated in the ocean would soon flow over the land, and cover it again with an universal inundation. It is evaporation which now prevents the catastrophe of another deluge.

"It has been calculated from careful observation, that the annual *evaporation* from the surface of Great Britain is equal to thirty-two inches of water; but the mean fall of *rain* over all Great Britain cannot be estimated at less than thirty-six inches. Hence the evaporation is less than the rain by four inches. This excess must be supplied from the neighbouring seas. The four inches of rain not again elevated in the state of vapour, must be annually carried into the sea by means of the different rivers. . . . Now, a quantity of water which would cover the whole surface of Great Britain to the depth of four inches, would amount to 1,238,784,152,000,000 cubic inches, which is equal to 4,467,725,610,767 imperial gallons, or 17,729,069,844 tons."—*Thompson's Outline of Heat, &c.*

Hence, eight times this enormous quantity ascends in vapour every year from our island, and nine times this inconceivable amount falls on it in rain.

VEGETATION.—Nothing is more curious in nature, than the persevering efforts made by the living principle in plants to force their root downwards. Whatever efforts may be made to give it another direction, are constantly baffled by the growing power, which knows where its nutrition lies, and will go rightly to seek it. No animal can display a more persisting volition. Yet, when circumstances become such, that its food is not downwards, but upwards, it will then, and then only, rest in that inverted and ascending position. Earth is not so essential to vegetable growth as moisture, for even trees will grow in water only. Earth is but the bed in which the vegetable nutriment is best prepared, and presented to the absorbing roots. This is now stated to be an oxide of carbon or humic acid, made by a chemical union with water, and which forms that humus, or soil, that most occasions or promotes vegetation.—*Sh. Turner.*

NORWAY.—Mr. Everest says of Norway:—"I have often felt that I could live and die contented among its rocks, and woods, and dales, in the midst of its quiet and virtuous people. No one ever left Norway without regret. It is a country, in many parts of which a child might walk about with a bag of gold, and no one would molest him; where the stranger, by day or by night, may knock at any door he comes to, and be welcome." But he describes them as "destitute of every comfort. With one large bed, like a deal box, into which they *all* creep, some straw is spread at the bottom, and sheep-skins serve for covering. Their waincoats are composed of trees, with moss stuffed in the chinks; and in some houses, the *whole stock* of utensils were, one large pot, an axe, one knife, and half a dozen wooden bowls and spoons. Still they were very happy." We usually found two or three religious books in every house."

HATCHING.—All birds enjoy the *perception* or *sagacity*, that their eggs in hatching should have a proper degree of heat, and the alternate movement of them for that purpose displays both a right reasoning, and acting rightly on it. While sitting, most birds are in the habit of *changing* the position of the eggs from the centre to the circumference, and *vice versa*, that all of them may receive an equal share of warmth.—*Jamieson.*

PERPETUATION OF THE HUMAN RACE.

CONTEMPLATE ourselves and the world in whatever way we may, we infallibly perceive in every fresh object of our contemplation a fresh reason for admiring the wisdom of the Deity.

Why, for instance, should not the human race *die*

altogether? Or why should not the number of deaths in each year be greater than the number of births, and an end be thus, in the course of years, put to the whole human race?

The ignorant never ask themselves these questions at all; the indolent and the careless say, "It is so," and think no more about the matter. But it would very ill become youth gifted with respectable talents, and happy enough to have the advantages of a liberal education, to be guided by the example of the ignorant or of the indolent. They should rather rejoice over every new occasion of exercising their reasoning powers, and of adding permanently to their stock of knowledge.

Without, in the present place, entering very minutely into the subject, we shall just state one or two of the most striking facts of the case,—facts which it is impossible to dwell upon, even for a moment without feeling the most complete and perfect admiration of the wisdom and benevolence of God.

Were all the deaths to be of persons of one age, they would not appear so evident and striking. But there are persons of all ages called away from the world; and yet, it is ascertained by the most rigorous calculation, that the deaths of the various ages are so regularly propor-

tioned to each other, that there is always nearly the same number of persons of the various mature ages in the world.

The number of births is larger than that of deaths, in the proportion of twenty-four to twenty. Even when epidemics, or other extraordinary causes, render the number of deaths much larger than usual during one year, the births in the following year are invariably more numerous in proportion.

It is thus that the human race rather increases than decreases in number; and that, at the same time, each period of life contributes its proper proportion to the demands of the grave. Reflecting thus, perceiving that the number of our years is written down even at our birth, we ought to be constantly prepared for death, but never afraid of it. We cannot tell when the day of our death shall be, neither can we defer it, when its approach becomes evident. It behoves us, therefore, to be prepared for that which may come at less than an instant's warning; and to reconcile our minds to the endurance of that which, sooner or later, must be endured. Prince and peasant alike are born to their last rest; and upon prince and peasant alike is the duty incumbent of so living, as that they may, even at an instant's notice, be prepared to die.

Literary Review.

22. *A Visit to Iceland, by way of Tronjem, in the Flower of Yarrow Yacht, during the Summer of 1834.* By J. BARROW, Jun. Author of 'Excursions in the North of Europe.' 8vo. Pp. 320. London: Murray.

THE author of the present volume has given us an interesting picture of the countries he has visited during this excursion, and the brief accounts of the several objects that were presented to his observation provide ample amusement, and in many instances, are of great usefulness to the general reader. Mr. Barrow, we perceive, is capable of discerning and relishing the beauties that engage his attention, and we hope his labour will find a recompense in the award of public approbation.

With one or two short extracts we must rest satisfied. After leaving *Tronjem*, (which is but a recent method of spelling *Drontheim*;) in Norway, our author made way for Iceland, where on visiting its memorable Geyser, he relates the following interesting occurrence:—

Our guides were digging up and throwing into the orifice large masses of peat or turf. The guides seemed to think that, by such provocation, they might succeed in bringing on an eruption; and as this was a wished-for event, we all lent our assistance in heaving in turf and peat in large quantities; and sure enough the boiling fluid, as if filled with rage and indignation at such treatment, burst forth almost instantaneously, and without giving the least notice, with a most violent eruption, heaving up a column of mud and water, with fragments of peat, as black as ink, to the height of sixty or seventy feet, and continuing to do so for eight or ten minutes, when it subsided, and all the water sunk into the shaft, where it remained in a tranquil state at its former depth. The masses of turf had been completely shattered to atoms, and dissolved, as it were, in the water, which did not recover the usual transparency of the Geyser waters when it ceased.

The author notices the following amusing

method of preventing horses straying after dismounting, with which we will conclude.

The custom, I believe, is entirely peculiar to this island. Two gentlemen, for instance, are riding together without attendants, and wishing to alight for the purpose of visiting some object at a distance from the road, they tie the head of one horse to the tail of another, and the head of this to the tail of the former. In this state it is utterly impossible that they can move either backwards or forwards, one pulling one way and the other the other; and therefore if disposed to move at all, it will be only in a circle, and even then there must be an agreement to turn their heads the same way.

23. *Lectures on the Means of Promoting and Preserving Health, delivered at the Mechanic's Institute, Spitalfields.* By T. HODGKIN, M.D. 12mo. Pp. 449. London: Arch; Harvey and Darton; Highley, &c.

As Dr. Johnson very justly observes, "such is the power of health, that without its co-operation every other comfort is torpid and lifeless, as the power of vegetation without the sun;" we therefore notice with much pleasure every publication, whose object is the preservation of so valuable a blessing. Dr. Hodgkin's Lectures now before us seem to be based on experience and practice, and replete with good, plain, and practical advice. In fact, we may venture to pronounce it valuable in every sense of the word, and a truly excellent manual, to be occasionally consulted by the invalid.

24. *A Treatise on Headaches, &c.* By Dr. G. HUME WEATHERHEAD. 12mo. Pp. 109. London: Highley. Edinburgh: Mac-lachlan and Stewart. Dublin: Hodges and Smith.

THIS is another work professing to alleviate certain of the ills that "flesh is heir to." After elucidating some peculiarities of the brain, Dr. Weatherhead proceeds to develop, in a very able manner, the causes, prevention, and cure of headache, and to those who are subject to the visits of so painful and so troublesome a companion we heartily recommend their attention to this instructive little volume.

25. *The Works of Alexander Pope, with a Memoir of the Author, Notes, and Critical Notices on each Poem.* By the Rev. G. CROLY, LL.D. Vol. I. London: Valpy.

THE admirers of Pope will be gratified with the appearance of this handsome edition of that great poet's writings; and the more so, as the task of editing it has devolved on an individual so well capable, by his learning and taste, of enhancing its importance in his "Critical Notices" attached to each poem. The volumes are to be published monthly, and in the size and style now so extensively prevailing in the reprints of our admired authors.

TO CORRESPONDENTS.

"J. K." should search any modern *Encyclopædia*.

We must refer "Tyro," to No. XXX. in Vol. I.

Erratum.—In our last Number, page 139, line 19, for Postig, read Tostig.

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PINNOCK'S GUIDE TO KNOWLEDGE.

No. CLXXI.]

SATURDAY, MAY 2, 1835.

PRICE
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DOMESDAY-BOOK,

PRESENTED TO WILLIAM THE CONQUEROR.

WHEN the Conqueror had become securely seated on the throne of England, and peace and tranquillity were dawning upon his dominions, he took the opportunity afforded by the absence of military strife, to attempt some settlement of his domestic and legislative affairs. We should observe, that since the accession of William to the British crown, the changes he had made in the government of the country, as well as in the laws, and in the administration of justice, had entailed such confusion upon the immediately succeeding years, as to demand prompt measures for the restoration of order.

The legislature of the Normans, also, differing from that of the English, and the king not having yet determined what course to pursue on that important subject, found it a continual source of perplexity. All the regulations which he had hitherto made, referred immediately to himself and his own private interest; and the fines, enactments, and punishments of criminals, &c. had been so opposite to true justice, that bribery, corruption, and the other evils of misgovernment, were assuming an alarming aspect. But avarice being the predominant

passion of the monarch, every thing was made subservient to its interest; all improvement and reform in the government of the country were neglected, and the entire energies of William were indefatigably applied in inventing expedients for its gratification. Of them all, the most important was that great rent-roll of the kingdom, which has since been so celebrated under the name of *Domesday-Book*, and which it is the object of this present paper to describe.

This ancient record was composed by verdict, on presentment of jurors, summoned from every county and hundred that was surveyed;—the number of jurors differing in proportion to the extent of each county. The business of these men was to give an accurate account, before certain commissioners sent from court, of the quantity of arable land, pasture, meadow, and wood; the names of the occupiers, their extent and value, both in the time of Edward the Confessor, and in the reign of William. The survey itself was made by counties, hundreds, towns, or manors, hides, half hides, and acres of land possessed by every individual; and this description

included the number of freemen, sodmen, villains or labourers, cottagers, borderers, slaves, cattle, mills, and fisheries.

By this survey, the Conqueror was enabled to regulate the taxes in such a manner, that all his subjects should bear a proper proportion of the burthen, which was as heavy as possible, that he might fill his own coffers, and keep his people humble and in subjection. That this survey was taken partly to satisfy the king's curiosity, we may safely believe, from the monstrous exactions which took place immediately subsequent to its completion. But the grand motives which induced him to prosecute this laborious work were ambition and avarice; and, considering England as a conquered country, he imagined himself as conqueror, and therefore proprietor of all the lands in the kingdom; and that the vanquished were to receive what he thought fit to assign them as a signal favour.

A very excellent account of this great book has been given by Sir H. Ellis, one of the librarians of the British Museum, which contains some admirable dissertations on the formation and execution of the record,—on the principal matters therein contained,—on its original uses, conservation, and authority in courts of law; from which disquisitions, for the information of our readers, we have selected most of the particulars that follow.

Domesday-Book consists of two volumes: the first,

a large folio of 382 double pages of vellum, with a double column in each page, is written in a small plain character, and contains a description of thirty-one counties. Some of the capital letters and principal passages in it are touched with red ink; while others have strokes of red ink drawn across them. The other volume is in quarto, written upon 450 double pages of vellum; but in a single column, and in a large and very fair character. It contains a survey of the counties of Essex, Norfolk, Suffolk, part of the county of Rutland included in that of Northampton, and part of Lancashire in the counties of York and Chester.

This book occupied six years in composing, having been begun by order of the king, and with the advice of his parliament, in the year 1080, and completed in 1086. It was then lodged in the office of the chamberlain of the exchequer, and called *Domesday-book* from its sentence, in imitation of that pronounced at the last day, being final. Stowe, however, assigns another reason for its name, which he says is a corruption of *Domus Dei book*; a title given it because heretofore deposited in the king's treasury, in a place of the church of Westminster (or Winchester) called *Domus Dei*. From the great care formerly taken for the preservation of this survey, we may learn the estimation in which its importance was held. It is now deposited in the chapter-house at Westminster, where it may be consulted by paying to the

proper officers a fee of 6s. 8d. for a search, and 4d. per line for a transcript.

At the time this survey was made, it gave great offence to the people, who imagined that its object was for some new imposition. But, notwithstanding all the precaution taken by the Conqueror to have this survey faithfully and impartially executed, it appears, from indisputable authority, that a false return was given in by some of the commissioners; and that, as it is said, out of a pious motive. This was particularly the case with the abbey of Croyland in Lincolnshire, the possessions of which were greatly under-rated, both with regard to quantity and value. Notwithstanding this proof of its falsehood in some instances, which must throw a suspicion on others, the authority of Domesday-book was never permitted to be called in question; and always, when it has been necessary to distinguish whether lands were held in ancient demesne, or in any other manner, recourse was had to that only to determine the doubt. From this definitive authority, from which there could be no appeal, this survey is supposed, as we have just observed, to be indebted for its name.

In addition to the two volumes above described, there is also a third, made by order of the same king; and which differs from the others more in form than matter. There is likewise a fourth called Domesday, which is kept in the exchequer; which, though a very large volume, is only an abridgment of the others. In the Remembrancer's office in the exchequer, is kept a fifth book, likewise called Domesday, which is the same as the fourth book already mentioned.

King Alfred had a roll which he called Domesday; and the Domesday-book made by William the Conqueror, referred to the time of Edward the Confessor, as that of King Alfred did to the time of Ethelred. The fourth book of Domesday, having many pictures and gilt letters in the beginning, relating to the time of King Edward the Confessor, has led many to a false opinion that Domesday-book was composed in the reign of King Edward.

In the reign of George III. in 1767, in consequence of an address from the House of Lords, directions were given for the publication of Domesday-book, as well as other records. An engraved fac-simile was at first contemplated, but the great expense of such an undertaking caused it to be laid aside: and a tolerably exact fac-simile metal type having at length been obtained, the editing of the work was confided to Mr. Farley, Deputy Keeper of the Records in the chapter-house at Westminster; a learned gentleman well fitted for the undertaking, and who had almost daily recourse to the book, for more than forty years. The work was commenced in 1770, and was completed early in 1783, at the press of Mr. Nichols. The type, however, with which it was executed, was destroyed by the fire which consumed his printing-office, in February, 1808. Accurately as this task was accomplished, yet the printed domesday-book was comparatively of little value, for want of minute indexes. This deficiency has been since supplied by the clerks in the Record-office of the chapter-house, under the superintendence of the late Right Hon. George Rose, the principal keeper of that repository of our national muniments; who have very accurately compiled into a folio volume indexes of names of persons, of places, and things so minute, that the object of inquiry, if in the work, may be readily ascertained. To these is prefixed that introduction to Domesday, by Sir H. Ellis, which we have before

stated as the source whence we derive the preceding remarks.

A supplemental volume in folio has been added to the Domesday-book, in order to complete it as an ancient and entire record of the kingdom; containing similar surveys of nearly coeval date, for Exeter, Ely, and Winton, or Winchester, together with that of the county palatine of Durham, which last was not comprised within the Conqueror's survey, but was taken at a subsequent period, and comprised in a volume denominated the Bolden Book. This supplemental volume was edited by Sir H. Ellis, who has provided it with accurate and appropriate indexes.

The great survey of William the Conqueror is now considered to be of much importance to the historian and to the antiquary, on account of the information it conveys on all subjects relative to the history and manners of that period.

CATKINS.

WITH the earliest dawn of spring,

————— "while yet the wheaten blade
Scarce shoots above the new-fallen shower of snow,"

a thousand beauties deck our woodland trees, which to unobserving eyes appear to be only so many green buds, the harbingers of future leaves. Little is it supposed that these "green buds" are clusters of flowers, which in most cases appear before the leaves, and which in the exquisite delicacy of their colours, and the marvellous contrivance of their forms, as much surpass the more showy blossoms of the summer's day in real soul-subduing interest, as the variegated glories of the dawning sun exceed the simple splendour of his noontide majesty. We cannot express the pleasure we have felt, when, turning our backs for awhile upon the cold and foggy haunts of men, we have journeyed on a spring morning to some thicket in the suburbs of the town, to regale our senses, and invigorate our minds with a sight of the catkins, which hang from the trees with a profusion worthy of the beneficent Being who gave them life to perpetuate the species, and beauty to charm the hearts of all those who take pleasure therein.

We recommend our readers, some spring morning, when the sun is rising, to get into the centre of a young wood, and if they have the least taste for the unsophisticated charms of nature, we promise them a vision of beauty, so imposing in its effect, and so curious in its details, that they will ever after deplore with us the apathy and worldly-mindedness which deprive the great majority of our fellow-creatures of such a sweet and purifying source of enjoyment, and which caused the royal botanist of Judea upon another subject to exclaim, "A wise man's eyes are in his head."

In the course of our articles on forest trees, we have had frequent occasion to describe the forms and offices of those flowers which are arranged in catkins; and in that of the birch, it will be recollected that we promised our young friends a paper devoted exclusively to their consideration. Our way is, therefore, clear before us, and we have little of an introductory character to mention, except that in our southern counties the catkins of the alders and poplars have bloomed and perished, while those

of the northern counties and Scotland, in which vegetation is a month and six weeks behind, are just now bursting from their winter's concealment.

A catkin is a tassel of *male* flowers, destitute of calyx or corolla, in place of which a little scale is produced. These scales, or bractæ, as they are called by botanists, are placed one beneath the other round the stalk of the catkin with the most precise regularity. Each scale covers a number of stamens, which spring from its lower surface, and are shielded by it from wet and too great a degree of light, just in the same way as our readers may have observed the helmet-shaped petal in the common white nettle protects the anthers and stigma which nestle in its concavity. Catkins are, therefore, with the exception of the willow and some others, clusters of stamen-bearing flowers; but if trees bore no other kind of flowers, we should be destitute in autumn of a great many useful fruits,—the nut, acorn, and the like, which are so useful as the winter food of many animals. Our little friends must therefore habituate themselves to look for the less showy *female* flowers; but in doing so, they will experience many difficulties. Let us suppose that the hazel is the subject of their investigation; they would have no trouble in pitching at once upon the catkins, or in separating and naming their component parts: all this would be quite easy; but where are the female flowers? Do any of the catkins bear them? They pull a hundred to pieces in vain, and are just on the point of giving up the pursuit, when a little scaly bud near the base of the catkins attracts their attention, from the circumstance of its being crowned with numerous short red threads, but in every other respect looking exactly like the leaf buds with which they had been confounded. These are the pistil bearing flowers, and the red threads are the stigmas, which catch the pollen from the catkins. Thus far well; but our intelligent little friends are not out of the wood yet. They would be justly proud of their discovery, and would certainly feel themselves to be fully competent to discover and investigate both the *male* and *female* flowers of *all* the catkin-bearing trees. We will suppose them, in this spirit, to attack a willow or a poplar; they gather catkin after catkin; but all those of the willow are *males*, and all from the poplar are *females*. This is an awful dilemma, and for the time utterly beyond their solution. The next day they search again, when, lo! the order of yesterday is reversed; the catkins of the willow from which they are now gathering are exclusively *females*, and of the poplar, *males*! Are they mistaken? They take the wisest, and if all history did not contradict the fact, one would suppose, the most immediate course. They go to the trees which they had examined yesterday, and find their first observations to be quite true. The simple truth then becomes manifest: some trees bear male and female flowers, others only male flowers, and others again only females. This distribution of the sexes, is the character upon which Linnæus founded his 21st and 22d classes. The first, named *Monœcia*, from *monos*, one, and *oikos*, house;—plants bearing stamens and pistils on the same plant; and the second, *Dioœcia*, from *dis*, twice, and *oikos*, house;—plants bearing stamens and pistils on different plants.

Nearly four hundred species of trees flower in catkins; and upon this coincidence in their mode of fructification, a natural family has been erected, called *AMENTACEÆ*, from the word *amentum*, which is the botanical term for a catkin. In this noble group, all the timber trees of Europe, and most of those of all cold countries, are

stationed. Every genus consists of plants important to the wants of man. The alder, the birch, the willow, the poplar, the oak, the chestnut, the hornbeam, the plane, and perhaps the elm, are all collected together in this family. The bark of nearly all the species is furnished with an astringent principle, which has rendered them valuable either for staining black, as in the alder and the oak-gall; or for tanning, as in the oak; or as febrifuges, as the alder, the birch, the oak, most of the willows, and also *Populus tremuloides*, which is well known in North America as a tonic and stomachic febrifuge. The fruit of many of the *Amentaceæ* contains a considerable proportion of *fecula*, which renders it fit for the food of man and other animals, as the acorns of the oak, the mast of the birch, the nut of *castanea* and *corylus*, &c.

This great natural assemblage of trees has been divided, for the convenience of study, and in accordance with certain similarities in their floral structure, into five sub-orders: 1. *SALICEÆ*, the *Salix*, or willow tribe, comprising the genera *Salix* and *Populus*. 2. *BETULINÆÆ*, the *Betula*, or birch tribe; comprising *Betula*, *Alnus*, *Carpinus*, *Ostrya*, and *Corylus*. 3. *CUPULIFEREÆ*, or nut-bearing tribe, with cups; comprising *Quercus*, *Fagus*, and *Castanea*. 4. *PLATANÆÆ*, or plane-tree tribe; comprising *Platanus* and *Liquidambar*. 5. *MYRICÆÆ*, or candleberry-myrtle tribe; comprising *Comptonia*, *Myrica*, *Casuarina*, and *Nageia*.

This arrangement, which is very clearly made, is not, however, sufficiently simple for those who are only yet on the threshold of botany, and for whom some less learned classification is necessary. We shall therefore proceed to describe the different genera, with occasional illustrations of their characters, according to the Linnæan method, which proceeds not upon the natural affinities of plants, but upon the number of their stamens, and when that cannot be conveniently followed, as in the present case, upon their sexes.

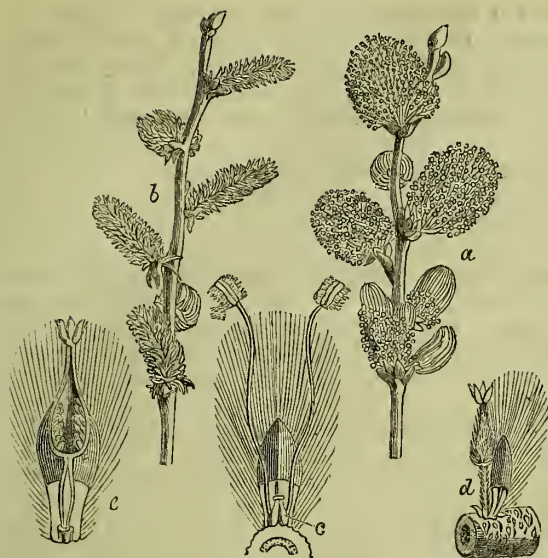
Amentaceous trees may be divided into—

- I. Those which bear *dioecious* flowers, as willow, poplar, candleberry, myrtle, and nageia.
- II. Those which bear *monœcious* flowers, as hornbeam, birch, alder, chestnut, beech, oak, hazel, plane, liquidambar, ostrya, comptonia, and causarina.

To these may be added the elm, which is certainly a catkin bearer, although it differs in so many particulars from the *Amentaceæ*, as to have made it necessary, in a strictly scientific work, to put it in a different situation. For our purpose, however, it very properly finds a place here.

I. DIOECIA.

1. *Salix*, the Willow. Of this genus there are one or two hundred species and varieties. The catkins are exceedingly beautiful, and are known among village boys as "palm," and are extensively used for ornament on Palm Sunday. Those of *salix pentandria* and *amygdalina*, are very large, of a bright red colour, and odoriferous. All of them bear a vast deal of cottony down to protect them against cold, which to many birds, and particularly the goldfinch, is of great use as a lining to their nests. The willow tribe is of great service to man. *Salix alba* affords a very useful timber, and is pollarded all over the world, together with *salix triandra*, to afford withies for the basket-maker.



Willow. *Salix caprea*. a Male catkins. b Female. c Male floret, magnified. d Female, natural size. e The same, magnified.

2. *Populus*, the Poplar, called in Rome the arbor populi, or tree of the people. The catkins are full of curious design, and should be very carefully studied: those of the abele tree, or white poplar, are the best for the purpose. This is an elegant and useful genus. They grow rapidly, and produce an abundance of soft wood. *Populus alba* is the most valuable British species.



White Poplar. *Populus alba*. a a a Buds of female flowers. b b b Catkins of males. c Bracts, each containing eight stamens. d Female bud. e Female florets. The three last figures are magnified.

3. *Myrica*. Candleberry myrtle.

4. *Nageia*.

These are mostly bushy shrubs, natives of almost all parts of the world: they should be sought for in our great nurseries, and carefully investigated. It is wonderful to see how nicely the nearly approaching species are separated from each other. The *myrica cerifera* is remarkable for the production of a waxen berry, from which candles are made by the American Indians.

II. MONECIA.

1. *Carpinus*, the Hornbeam. This grows plentifully in hedges, and from March to the end of May, beguiles, by the beauty of its catkins, the walk of the weary but thinking traveller. It derives its name from two Celtic words, *car*, wood, and *pin*, the head—wood for the head, in allusion to its ancient use (which continues), for the yokes of cattle.

2. *Betula*, the Birch. This we have so recently described, that we need do no more than refer to our article.—See No. CXLVII.

3. *Alnus*, the Alder. By the side of a stream, with a March breeze shaking its catkins, no tree presents a more curious spectacle. The twigs appear to be covered with a host of writhing caterpillars. The fructification, and the differences between the bracts of the male and female catkins, should be carefully distinguished, as, indeed, in all other cases. We shall shortly present this tree to our readers, and shall therefore postpone any further remarks to that occasion.

4. *Castanea*, the Chestnut.—See No. CLXIX.



Chestnut. *Castanea vesca*. a a Male catkins. b Females. c Male floret, shewing the stamens. d Female florets. e Pistils from ditto.

6. *Fagus*, the Beech. The catkins of the beech usually grow so much beyond reach, that they should be sought for on the ground after a high wind. They differ from most of the preceding in being globular. The female should be studied through the whole of the summer season, and the gradual development of the fruit made the subject of particular observation. We shall have more to say on this subject in a future article on the tree itself.

7. *Quercus*, the Oak. The catkin is loose, long, and thread-shaped, and is seldom noticed, as it appears after the leaves, which hide it from observation. The "masquerade" of botany, as it has been called, is beautifully exhibited in the structure and growth of the female, of which more anon. In the mean time our little friends should be on the look out for its appearance.

8. *Corylus*, the Hazel. The catkins are loose, but covered with perhaps 150 scales, beneath each of which there are eight anthers. This enormous provision is necessary to insure the impregnation of the pistils, which, usually standing above these, might otherwise have suffered from the want of pollen. But as it is, that fructifying powder is emitted in such quantities, that on a fine sunny day the whole air round the tree is loaded with its golden-coloured particles. Of this we shall by and bye speak at greater length.



Plane. *Platanus occidentalis*. Twig, with the globular female catkin. a Male catkins. b Stamen.

9. *Platanus*, the plane. This graceful tree bears but very small catkins, and owing to the height at which they grow, are rarely observed by the uninquiring. The

clusters of the females are, however, very large and conspicuous. In autumn a very beautiful mast is formed from them, which, after the fall of the leaves, hang like little balls all over the tree, and continue through the winter; falling only when the ground is ready to receive them.

10. *Liquidambar*.

11. *Ostrya*.

12. *Comptonia*.

13. *Casuarina*.

These our limits prevent us from describing separately. And we merely notice them, that our juvenile friends may not forget to ask the gardener to get the flowers for their examination. That of *ostrea* will perhaps please them more than any we have enumerated, and is indeed a very extraordinary production. *Liquidambar* is so called from a balsam which is produced by the tree, and which is chewed by the North American Indians. *Ostrya*, from a Greek word signifying a scale, from the large scales of the catkins. *Comptonia*, after Henry Compton, Bishop of London, who first cultivated it in 1714; and *Casuarina*, from a supposed resemblance which its branches bear to the feathers of a cassowary.

We have only now to notice the Elm, (*Ulmus*), which, as we have already hinted, has by some been separated from the *Amentaceæ*, and made the type of a distant family, called *Ulmaceæ*. The Elm bears male and female flowers upon the same tree. The males grow in bunches containing fifty or more florets in each, and are always found on the upper parts of the tree. The females appear after the males have perished, and have their germs curiously winged with a flat and stiff membrane which invests them. At the latter end of May, the walks in a park where elm is plentiful are often covered with them. They are called by the country people "leaf covers."



Common Elm. *Ulmus campestris*. a Male flowers. b Male floret, with the stamens. c Branch, with the female flowers. d The stigma of ditto.

Sometimes she is obscured for awhile, but appears at last in perfect splendour, and surmounts, by her own force alone, the falsehood under which she has been oppressed.—*Polybius on Truth*.

VARIETIES.

FIXED STARS.—Though the fixed stars appear to our unassisted eye as single stars, some are not so, but are a combination of several. One has been ascertained to be a sextuple star, or six associated together. Sir J. South notes the σ of Orion to be of this kind; two others are quadruple, or groups of four; Sir J. South also notes the ζ of Perseus, and α of the Twins in Castor, to be of this kind. Several are triple, as the γ in Leo, the ϵ of Bootes, &c.; and still more are double, as the θ and γ of Virgo, the η of Cassiopeia, the ξ of Bootes, &c. This resembles our earth, and the moon, and the other planets with their satellites. This similitude is increased, by our finding that they revolve round each other, or round a common centre, as we and our companion move round the sun.—*Shar. Turner.*

COMETS.—Nearly one half of the comets move from west to east, while the other half perform their movements in a contrary direction.—*Quar. Rev. No. XLI.*

ANT.—The ant is as full of life, and comfort, and curious instincts, and as skilfully organized as the whale, or the lion.

VANITY OF BIRDS.—Some birds exhibit a taste for the little gratifications of vanity. Goldfinches are delighted with viewing themselves in a glass fixed to the back of their bucket board, where they will sit upon their perch, pruning and dressing themselves with the greatest care, often looking in the glass, and placing every feather in the nicest order.—*Albin.*

AN INDIAN COUNCIL.

In the autumn of 1830, the writer was present at a council of Indian Chiefs, held in the gardens of Government House, at Toronto, the capital of Upper Canada. It had been convoked by the Lieut. Governor of the province (Sir J. Colborne), for the purpose of ascertaining the sentiments of the tribes with respect to a contemplated allotment of land in certain fixed portions to families among them, with the view of inuring them to settled modes of life. Early in the morning, the chieftains of the forest were seen wending their way, in full attire, towards Government House. A double circle of seats had been arranged in the open air before the entry, and here the chiefs, to the number of forty, were seated; on the landing to the flight of steps leading to the entry was placed a table, behind which stood his Excellency surrounded by his staff in full uniform; at the table a secretary was sitting; and around, beyond the circle of seats, was drawn up a guard of honour, of the 71st Highlanders, in their national dress. The attire of the chiefs, for the most part, was fantastic in the highest degree, *i. e.* according to our notions, for we may be sure that the sedateness and sobriety which really characterize them, would by no means have us consider them ridiculous. A very prevalent head-dress was a gaudy handkerchief lapped turban-wise, to which, behind, was appended a plume of hawk or turkey-feathers, whilst ponderous clusters of silver ornaments (large crosses in many instances) dragged down the rims of their ears, which, in their infancy, had been slit entirely round for the purpose. For this sort of decoration they have a peculiar liking: they exult in an exuberant display of tinsel trappings attached to every possible part of their person. Some, however, wore the ordinary modern beaver, which becomes them when the rest of their attire is consistent, as was the case in many at this time, who appeared noble figures in their light surtouts, trowsers, and Wellingtons. Still, many adhered to the regular chief's costume, the head bare, the hair long and sleek, a tunic of blue cloth, with worsted sash about the waist, cloth leggings, edged at the sides with embroidery of porcupine-quills, and buckskin

moccasins ornamented in a similar manner, broad silver arm-bands, a medal, bearing the king's head, suspended like a gorget at the throat, the tomahawk and knife.

Each chief stood as he spoke; the delivery and tone of each was very similar; the language highly musical, running along like a low simple Scottish air, regularly dropping at the close of each sentence with a frequent but not monotonous cadence; the Interpreter, a young man, stood uncovered at his Excellency's left, with two assistants and correctors. His attitude was admirable: he stooped slightly forward, his eyes fixed towards the ground, both hands raised; the picture of attention, while another was speaking,—of sincerity and disinterestedness when he himself spoke. The little action employed in speaking was graceful, consisting principally in waving the hand; they seldom lifted the eye, and scarcely appeared to move the lip. None seemed abashed, or at a loss for words. They addressed his Excellency by the title of "Brother," (every sentence began with this,) whilst the king himself they spoke of as "Father." All appeared to acquiesce in the proposal which was made to them respecting the land, but were shrewd in hinting that they must have every thing secure *upon paper*, for the sake of their children and relatives. All expressed grateful feelings towards their Father, who had sent his Excellency to them, and declared that they should maintain their attachment to him as long as the sun shone, the waters ran, till the Son of Man came again upon the earth, &c. This last was a frequent allusion. One only was the representative of an unconverted tribe. Among the anomalies in the group, were to be seen an excessively corpulent Indian, (a very rare sight,) another with spectacles; another with an umbrella. One was named "Echo," from the sweetness of his voice; another, "Twenty-Canoes." On the Interpreter's delivering any sentiment of his Excellency's, which particularly pleased them, they expressed their approbation by their honest laconic "hu!" breathed out *ab imo pectore*,—equivalent, doubtless, to our "hear! hear! hear!"—Notwithstanding the idea of pithy brevity, which is usually attached to Indian speeches, the English language expresses in half a dozen words what seems to take them a hundred, the cause of which is, their words are so immeasurably long,—*sesquipedalia verba*, with a vengeance. I heard of an old chief, who once roundly taxed his interpreter with not delivering a half of what he had expressed. At the time of the council we are now speaking of, Brandt,* the famous Indian chief, was in the city, but dangerously ill. Allusion was made to him by one of his brother chiefs, evidently with no very kindly feeling; by many of them, doubtless, his refinement was deemed either degeneracy or arrogance. When the council had ended, long tables, covered with every variety of refreshments, were spread upon the lawn, to which the group adjourned. The officers of the regiment, and gentlemen attracted to the spot by the novelty of the scene, performed the honours as well as the services of the table. The knife, fork, and spoon, (those unwonted implements,) were used with considerable ease and activity by the guests; and every thing, with the exception of some unfashionable mixtures, as raisins with cold beef, custard with mince-pie, &c. passed off with as much propriety as could be expected. The wives (or squaws, as they are called) of some of the chiefs were present, but merely as lookers-on. During the banquet they kept at a respectable distance. Some of the

* Brandt, of Brant-ford, was returned a member for one of the western townships. The writer has frequently seen him in the House of Assembly of Upper Canada; a tall full-blooded Indian, but most gentlemanly in his manners. The poor fellow was swept off by the cholera, in 1832.

gentlemen present, however, gallantly carried to them some little delicacies from the tables, with which they regaled themselves with no little apparent satisfaction, under the neighbouring trees. The opportunity was seized for sketching several of the characters assembled on this occasion; they were aware what the artist was engaged in, and several good-humouredly consented (though only requested by signs,) to remain, after the close of the feast, for the more

complete finish of the sketches. In turning over his portfolio, they were wonderfully amused at recognizing their brother chiefs. On another occasion, whilst a young friend of the writer was enriching his sketch-book with figures from a group of Indians before him, one of them brought him a humorous caricature of himself, in the act of sketching, scratched on a broad stone. This memorial of "savage" waggery, of course, he treasured up. X.

Literary Review.

26. *Spiritual Honey from Natural Hives.* By SAMUEL PURCHAS. *A Reprint.* 12mo. Pp. 176. London: Bagster; Pickering.
27. *The Management of Bees.* By SAMUEL BAGSTER, Jun. *With Engravings.* 12mo. Pp. 244. London: Bagster; Pickering.

THESE two neat volumes have been a few months before the public, and although quite independent of each other, are yet natural companions. The former was first published in 1657, and has been augmented and improved in this present edition, by Mr. Samuel Bagster, jun. It is a collection of theological meditations and observations on the peculiar instincts and economy of the Bee, with a text of Scripture prefixed to each meditation,—the work of the present editor. By the serious and devotional this volume will be thoroughly appreciated, and readers in general will find much to entertain them. We leave it with this brief extract, to look into its companion:—

"AT THE LAST IT BITETH LIKE A SERPENT."
PROV. XXIII. 32.

All the ways of worldly pleasure are strewed with needles and nettles, which ever and anon prick and sting her darlings as they pluck her fading flowers: so that at best they are like bears robbing a bee-hive, who ravenously ripen the combs, and with much ado suck out a little honey, but in the mean time are soundly stung and swollen about their heads for their painful pleasure.

The second work is a practical volume, having for its object, or, to use the author's own words, is intended "to simplify the process of bee-management, by pointing out the character of the little favourites, the different modes which have been put into practice to govern them, to show how far their natural instincts may be made subservient to their artificial culture, and that attention to certain results is the only true method of obtaining perfection." And we must join with Mr. Bagster in observing, that he has laid before the public a plain system of practical experience, without loading his book with unnecessary theories or dry disquisitions. Of the bees, particularly the queen-bee, our author interestingly remarks—

The society of a hive of bees, besides the young brood, consists of one female, or queen, several hundreds of males, or drones, and many thousand workers. . . . Of these the queen-mother demands our first attention, as the personage upon whom, when established in her regal dignity, the welfare and happiness of the apian community altogether depend. The first moments of her life, prior to her election to lead a swarm, or fill a vacant throne, are moments of the greatest uneasiness and vexation, if not of extreme

peril, and vindictive and mortal warfare. . . . The jealous Semiramis of the hive will bear no rival near her throne. There are usually not less than sixteen, and sometimes not less than twenty, royal cells in the same nest; you may therefore conceive what a sacrifice is made, when only one is suffered to live and to reign. But here a distinction obtains which should not be overlooked; in some instances a single queen only is wanted to govern her native hive; in others several are necessary to lead the swarms. In the first case, inevitable death is the lot of all but one; in the other, as many as are wanted are preserved from destruction by the precautions taken on that occasion, under the direction of an all-wise Providence, by the workers. There is that instinctive jealousy in a queen-bee, that no sooner does she discover the existence of another in the hive, than she is put into a state of the most extreme agitation, and is not easy until she has attacked and destroyed her. The queen that is first liberated from her confinement, and has assumed the perfect, or imago state, soon after this event goes to visit the royal cells that are still inhabited. She darts with fury upon the first with which she meets; by means of her jaws she gnaws a hole large enough to introduce the end of her abdomen, and with her sting, before the included female is in a condition to defend herself or resist her attack, she gives her a mortal wound. The workers, who remain passive spectators of this assassination, after she quits the victim of her jealousy, enlarge the breach that she has made, and drag forth the carcase of a queen just emerged from the thin membrane that envelops the pupa. If the object of her attack be still in the pupa state, she is stimulated by a less violent degree of rage, and contents herself with making a breach in the cell; when this happens, the death of the inclosed insect is equally certain, for the workers enlarge the breach, pull it out, and it perishes.

In conclusion, we heartily bestow our good word on these volumes, and wish them the success they merit. For our younger readers, however, we must add this advice of Mr. Bagster.

If you find, on approaching your hive on a windy day, that the bees have as much as they can well do, safely to reach home, get out of their way, or the first young fellow who is driven against you by the wind, will make haste into the hive, and quickly give the pass-touch of war, when you may expect a regular attack. Common sense says, "Do not go near the hive on a windy day." Again, bees dislike shaking: for you will find on the least vibration of a hive, a number come to the door in a great hurry to see what is the matter.

28. *A New Guide to the French Language and Conversation.* By J. ROWBOTHAM, F.R.A.S. 18mo. Pp. 276. London: Joy.

THIS is a collection of numerous phrases of great use in facilitating an acquaintance with the French language, and in acquiring that style of speaking which is so necessary to a free and intimate knowledge of language generally. The arrangement adopted by the author is good; but the attempt to con-

vey to the learner the correct pronunciation of the French words by the sounds of English letters, is futile, if not impracticable. The Dialogues, Models of Letters, and Tables of French and English money, at the end, are very useful, and must considerably increase the utility of the work.

29. *Tables for Planting and Valuing Underwood and Woodland; and many others.* By RICHARD HORTON. 12mo. Pp. 83. Saffron Walden: Youngman. London: Longman & Co.; Taylor.

THIS is a very valuable compendium of numerous useful tables, and well adapted for land and house stewards, agents, appraisers, surveyors, farmers, and, indeed, every class of persons connected with the sale of timber, or controlling the expenditure of an estate or household.

30. *The Way to be Happy.* By Mrs. L. H. SIGOURNEY. 18mo. Pp. 101. London: Ward.

A VERY instructive little volume for children, conveying, in a pleasing manner, sound principles of morality.

31. *A Manual of Experiments illustrative of Chemical Science, &c.* By JOHN MURRAY, F.S.A., &c. Fourth Edition. 12mo. Pp. 156. London: Renshaw.

THE whole of this treatise evinces the author to have investigated the science of chemistry thoroughly and practically; and the information conveyed in this volume will be found important to scientific youths, particularly young chemists.

TO CORRESPONDENTS.

We thank "X" for his communication; it shall be in our next.

"Veritas" will oblige us by reading our Notice to Correspondents, in page 83, No. CLXI.

"A Subscriber and Constant Reader" shall have our attention before the appearance of our next Number.

We are obliged to "Observer" for his suggestions.

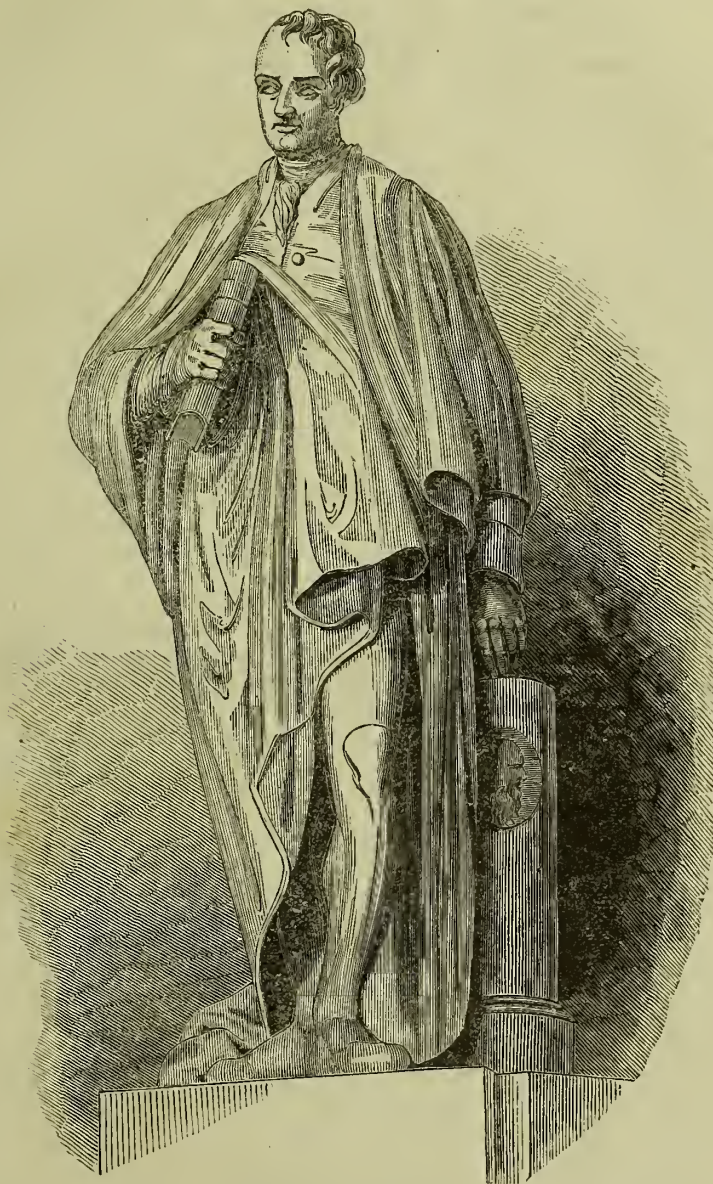
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PINNOCK'S
GUIDE TO KNOWLEDGE.

No. CLXXII.]

SATURDAY, MAY 9, 1835.

PRICE
ONE PENNY.



Sir Joshua Reynolds's Monument in St. Paul's Cathedral.

BIOGRAPHY OF SIR JOSHUA REYNOLDS,
FIRST PRESIDENT OF THE ROYAL ACADEMY.

THE several styles of imitating and depicting nature, in all her enchantment, loveliness, and variety, which peculiarly characterise the glowing inspiration of different countries, have given rise to a diversity of *schools*, such as the Dutch, the Flemish, the Florentine, the English, &c. ; and each of these embrace a multitude of subjects, such as landscape, portrait, historical, architectural,

animal, and many others.* The range of painting practised by the English school, though it has become

* The art of Painting possesses great variety in the choice of subjects, which may be either *historical*, (comprising *mystical* and *allegorical*.) *grotesque*, *portrait*, *fancy*, *animals*, *fruits and flowers*, *battles*, *landscape*, *sea views*, *architecture*, and *still life*. This last term refers to all inanimate objects, and chiefly to household furniture, implements of use, &c.

extensive, shines with the greatest brilliancy, and by the energies of its artists displays the highest effect, in *portrait* painting; a circumstance, perhaps, that demands our admiration, when we consider the human face as the honest index of the passions, the grand vehicle of feeling and expression, developing with convincing accuracy the true and actual character of the particular possessor. Such being the case, it demands those powers in the painter, not merely of the hand, but of the head,—not only skill in drawing and colouring, but mind sufficient to comprehend, and tact sufficient to call forth, all those delicate varieties and gradations of feature, which discriminate and distinguish the multitudinous characters of our race; and so as to produce a perfect, just, and intellectual representation

and likeness. Not confined to single, isolated countenances, the study enters into the higher department of *historical* painting, in which many actual portraits are introduced, which convey those delightful charms arising from the power of depicting with force and accuracy the various and conflicting passions of the human heart, and which are so admirably and so eloquently mirrored on the countenances of mankind.

At the head of our native school, which is highly eulogized by Millin for “judicious composition, great excellence in drawing the human form, elevated ideas, and truth of expression,” may be placed the names of Hogarth,*

* See the “Biography of Hogarth,” Vol. II. p. 169, of this work.

Sir Joshua Reynolds, and Wilson. These great geniuses have given a glowing impetus to the art, and by their examples produced a number of worthy aspiring successors, who have devoted their untiring energies to its honour and advancement.

An idea may be formed of the present state of British art, by looking over the annual returns of the numerous exhibitions of painting in different parts of the kingdom, at the head of which stands the *Royal Academy*, at Somerset House,—a splendid mass of *portraiture*, such as has rarely, if ever, been surpassed in any school of any nation. It is an annual exhibition of pictures, &c. executed by members of the Academy, and the principal artists of the empire, and generally opens to the public view on the first of May, and usually for about three months, during which, every person who visits it pays one shilling for admission, and, at his option, one more for a descriptive catalogue. The works of art exhibited at this Academy are worthy the attention of our readers, and comprise a large collection of paintings, sculptures, models, proof engravings, and drawings. The Academy was established by royal charter in 1768, and consists of forty members, called Royal Academicians, twenty associates, and six associate engravers. The first president was Sir Joshua Reynolds, to whose skill the centre of the coved ceiling of the library on the first floor is indebted for its ornamental design, representing in beautiful colours the theory of the art under the form of an elegant female, holding in one hand a compass, in the other a label, on which is written, "Theory is the knowledge of what is truly nature." In the council room, which is beautifully decorated with the paintings of numerous eminent masters, there are whole length portraits of George III. and his consort, painted also by Sir Joshua.

It would be inconsistent with our present purpose to enter at large into the theory and practice of the art of painting: but as we should have deemed this article incomplete did we not preface it with a few observations relative to our native school of painting, and to the Royal Academy, which latter is at this moment an object of great interest and attraction to every one living in this vast metropolis, we therefore now proceed with the biographical sketch of the life of Sir Joshua Reynolds.

This individual, the most celebrated painter of the English school, was born at Plympton, in Devonshire, in the year 1723. His father was master of the grammar school in that town, and under his personal guidance reared up the childhood of his son Joshua. During his puerile years, this youth exhibited an early and strong inclination for the art of drawing, by continually copying the many prints he could procure, numbers of which he diligently sought for in the books of his father. Induced by these powerful indications of natural genius, the reverend gentleman placed his son, when he had reached his seventeenth year, with Mr. Hudson, at that time the most eminent portrait painter in London. Under this artist, young Reynolds passed some few years, when, having acquired merely the mechanical rudiments of painting, some trifling disagreement separated him from his master, and induced him to return into Devonshire.

About this period, we may observe, the arts were at a very low ebb in England; and indeed so low, that the first professional man was but an ordinary artist, whose chief excellence rested in taking a likeness. And it may perhaps be considered to have been an advantage to our young student, to have abandoned as he did a lame imitation of

inferiority, and by that means obtain the indulgence of perfecting himself in his art under the pleasant tuition of his own genius. Three years he passed away in a kind of dissipation, and without any determinate plan: yet, some of his performances during this interval would not have discredited his maturer years. From 1746 to 1749 he continued to pursue, with his accustomed attention and assiduity, the art of painting, both in Devonshire and in London, and by his persevering efforts acquired numerous friends and patrons. Among the latter class was Captain Keppel, afterwards Lord Keppel, who having imbibed great partiality for the young man, invited Reynolds to accompany him on a cruise in the Mediterranean, which he gladly accepted in the summer of 1749. At the close of the year, Reynolds landed at Leghorn, and proceeded to Rome, where, and in other parts of Italy, he spent three years. On his return home, feeling satisfied with the great progress he had made in his profession, he attempted to paint a whole length portrait of Captain Keppel, which he executed so well, and with so much taste, that it obtained universal admiration, and at once placed him at the head of the English artists in that branch of study. By rejecting the stiff, unvaried, and unmeaning attitudes of former artists, and by giving to his figures air and action suited to their characters, he formed a new era in portrait painting. Though he had reached this eminence, two noble and emulous characteristics seemed to accompany his efforts throughout his whole professional career, which were, a constant endeavour after improvement, and an eager aim at perfection. But these led him to make numberless experiments in his art, particularly in colouring, which was a branch equally his excellence as in some measure his defect. The qualities of richness, brilliancy, force, and freshness, to a high degree, he combined in his happiest exertions; but the restless spirit of alteration often led him to attempt particular modes of colouring, which, probably from his ignorance of chemistry, or want of knowledge in the mechanism of colours, frequently failed, and left his pictures in that faded state, which has at length become almost a kind of mark of his productions. His own observation relative to his efforts in this branch of his art, is of similar import to these remarks:—"I tried every effect of colour; and by leaving out every colour in its turn, shewed every colour that I could do without it. As I alternately left out every colour, I tried every new colour; and often, as is well known, failed."

Notwithstanding this, Reynolds was indefatigable in his pursuit, and by his great genius soon reached that rank which scarcely any other native artist has attained; for he was not only universally regarded as at the head of his profession, but enjoyed the first company in the kingdom with respect to talent, learning, and distinction. He had a collection of pictures, chosen with great taste and skill, and which formed studies for his advancement and improvement. And it is through his powerful instrumentality, that we may perhaps be indebted for the establishment of that *national school* of art, which has distinguished the reign of George III. and which we have noticed above. On the institution of the Royal Academy, he was unanimously elected president; and the king on that occasion flattered his great talent by conferring on him the order of knighthood.

Sir Joshua, in this eminent position, and although it was no prescribed part of his duty, was urged by his extraordinary zeal for the advancement of the fine arts in this kingdom, to deliver annual or triennial discourses before

the Academy. Of these, he pronounced fifteen between the years 1769 and 1790, which were published in two sets, and in which he successively treated on the most important topics relative to the principles and practice of painting.

In 1781 and 1783 he visited Holland and Flanders, for the purpose of viewing the principal works of art in those countries, an account of which he drew up for publication; and in the next year, upon the death of Ramsay, he obtained another professional honour in the appointment of principal painter in ordinary to His Majesty.

Sir Joshua Reynolds had now reached the full zenith of celebrity, and continued for some years to follow his employment, although a temporary paralytic seizure had afflicted him. In 1789, however, his impaired sight compelled him to lay aside his pencil, which he endured with his usual spirits; but, in 1791, becoming with other ailments very deaf, although he had long been in a trifling measure subject to a difficulty in hearing, his spirits gave way, and in the following year, unafflicted with a long trial, a disease of the liver carried him off. He died, unmarried, in his sixtieth year, in the month of February, 1792, and was interred in St. Paul's cathedral, whither his obsequies were attended by as great a number of nobility and gentry as ever perhaps followed a private person. A monument was erected to his memory there, a representation of which we have given our readers in the Engraving at the head of this article.

Though Sir Joshua Reynolds ranks in the class of portrait painters, yet there was scarcely a year in which his pencil did not produce some work of the historical kind, among which were several that excited general admiration, particularly his Ugolino, and his Death of Cardinal Beaufort. His powers of invention, however, were inadequate to the higher flights of historic painting; but they were inexhaustible in portrait, to which indeed he gave a greater and more delightful variety than had probably ever before been produced. He also perfectly understood the management of light and shade in pieces of single or few figures, and likewise showed great skill in composition. His works, in general, are highly pleasing, and possess many great charms.

As a writer, Sir Joshua obtained much credit by his "Discourses," which are very elegant and agreeable compositions, replete with just criticism and useful observation; but from the want of an accurate consideration of the subject, are often vague, and sometimes inconsistent. He added notes to Mason's Translation of "Dufresnoy's Art of Painting;" gave three papers on painting to Johnson's "Idler;" and wrote his "Journey to Flanders and Holland," which merely consists of short notes on the pictures he saw, concluding with an elaborate eulogium on Rubens.

Of the private life of Sir Joshua Reynolds we know little, for his existence was passed in the uninterrupted exercise of his profession, with little variety of incident. Among his acquaintance were Johnson and Burke. Johnson has said of him: "Reynolds is the most invulnerable man I know, and one whom, if I should quarrel with him, I should find the most difficult how to abuse." To Burke, who though a great, was a needy, man, Sir Joshua afforded in his necessities very liberal pecuniary assistance.

Being ourselves admirers of the genius of this great man, we will conclude this biography of him with an extract which exactly coincides with our estimate and opinion of his productions:—"Sir Joshua Reynolds,

on his return from Rome, at a previous part of his life, carried the art—at least, as far as regards portrait painting—to its very highest point of perfection. The life, the grace, the truth of his portraits, have, for a long series of years, demanded and received the tribute of universal admiration. His best specimens are perhaps inferior to no pictures of the same kind in existence, and in some points may be said to exceed the performances of any preceding artist. He not only appears to have always aspired to attain the highest excellence of colouring, but in very many instances he did attain it; there being no one particular in which, generally speaking, he left his contemporaries so far behind him as in the richness and mellowness of his tints, when his colours were successful and permanent.

"Though the landscapes Sir Joshua has given in the background of many of his portraits are eminently beautiful, he seldom exercised his hand in regular landscape painting; but in the historical department he took a wider range; and by his successful exertions in that higher branch of his art, he not only enriched various cabinets at home, but extended the fame of the English school to foreign countries."

THE FOSSIL DEER OF IRELAND.

(*Cervus megaceros.*)

THE extended cultivation and improvement of the two interesting sciences of Geology and Comparative Anatomy, have led to various speculations respecting the important changes the surface of our globe may have undergone, and respecting those particular genera to which the fossil remains discovered in particular strata of the earth belong.

The various organic remains which are found in the strata of alluvial formations have been referred to two divisions, one comprising those of animals belonging to some present existing species, the other, those of species which for some length of time have become extinct. Of this latter division there are none more deserving of attention, or more calculated to give rise to feelings of surprise and admiration, than those bones and horns of enormous size belonging to an animal of the deer tribe, which are constantly dug out of the bogs and marl pits of Ireland, and which it is the object of this paper to describe.

On this subject Archdeacon Maunsell, in a letter to the Right Hon. G. Knox, makes this observation:—"There is, I conceive, much interesting material for speculation, resulting from the discovery of these fossil remains; and the first that naturally occurs is the manner in which the animals were destroyed, and the bones so singularly preserved. I stated, in the hasty sketch which I gave you of my theory upon this point, that I apprehended they must have been destroyed by some overwhelming deluge; that they were probably drowned upon the hills where they had taken refuge, as the waters rose, and that, as they subsided, they were drawn from thence into the valley in which they were found; that the agitation of the waters had occasioned such a dispersion of the bones, when the ligaments dissolved, as would account for their having been scattered in the way in

THE FOSSIL DEER OF IRELAND. (*Cervus megaceros*.)

which they were found; and that the deposit of shell marl, with which I supposed the water to have been turbid, had so completely protected them from atmospheric influence, as to prevent their subsequent decomposition. The valley in which the remains were found contains about twenty plantation acres, and the soil consists of a stratum of peat, about a foot thick; immediately under this a stratum of shell-marl, varying from $1\frac{1}{2}$ to $2\frac{1}{2}$ feet in thickness.

"Most of the bones and heads, eight in number, were found in the marl; many of them, however, appeared to rest on the clay, and to be merely covered by the marl. The remains were disposed in such a manner as to prevent the possibility of ascertaining the exact component parts of each skeleton; in some places portions were found removed many yards from others, and in no instance were two bones found lying close to each other. Their position also was singular: in one place two heads were found, with the antlers entwined in each other, and immediately under them a large blade bone; in another, a very large head was discovered, and, although a most diligent search was made, no part of the skeleton found; within some hundred yards, in another, the jaw-bones were found, and not the head."

A perfect specimen of the skeleton of this animal, one

of the most remarkable animals which ever existed, by the skill and ingenuity of Dr. Hart, to whom we are particularly indebted for our observations on this subject, has, with some difficulty, been obtained, and is now deposited in the Museum of the Royal Dublin Society, a representation of which our artist has provided our readers in the Engraving above.

It is the only perfect one in existence, and comprises every single bone of the frame-work contributing to form a part of its general outline: the spine, the chest, the pelvis, and the extremities, are all complete; and when they are surmounted by the head and beautifully expanded antlers, which latter extend out to a distance of nearly six feet on either side, a most splendid display of the reliques of the ancient grandeur of the animal kingdom is presented to our view, while our imagination is at the same time carried back to that period when whole herds of this noble animal wandered at large over the face of the country. We will now attempt some brief description of its several parts, commencing with the horns,* which give the animal its chief characteristic feature. The root of the horn, which is the part growing

* *Cervus megaceros* is the scientific name of this animal, which is merely expressive of the great size of its horns.

out of the frontal bone, and which is never shed, is smooth, of a brown colour, an inch and a half in length, and eleven inches three quarters in circumference; in the animal's life-time it was covered by the skin. Proceeding with Dr. Hart's description, "The beam, or shaft, extends outwards with a curvature, whose concavity looks downwards and backwards. This part is nearly cylindrical at its root, and its length equals about one-fourth of that of the whole horn; its outer end is spread out and flattened on its upper surface, and is continuous with the—

"Palm, which expands outwards in a fan-like form, the outer extremity of which measures two feet ten inches across, being its broadest part. Where the beam joins the palm, the horn undergoes a kind of twist, the effect of which on the palm is, to place its edges above and below, and its surfaces anterior and posterior; the anterior surface is convex, and looks outwards; the posterior is concave, and its surface looks towards that of the opposite palm. Such is the position of the horns when the head is so placed that the zygomatic arch is parallel to the horizon, as it would be during progression, or whilst the animal stands in an easy posture.

"The antlers are the long pointed processes which project from the horns, two of which grow from the beam anteriorly; the first comes off immediately from the root, and is directed downwards, overhanging the orbit; this is called the brow-antler, which, in this specimen, is divided into two points at its extremity.

"The other antler, which comes off from the beam, we may call the sur-antler; in this specimen it consists of a broad plate, or palm, concave on its upper surface, horizontal in its direction, and forked into two points anteriorly,—an appearance which I have not observed in any other specimen of upwards of forty which I have seen, nor do I find it marked in any of the plates of those bones extant.

"There is one antler given off posteriorly from the junction of the beam with the palm: it runs directly backwards, parallel to the corresponding one of the opposite horn.

"The surface of the horns is of a lightish colour, resembling that of the marl in which they were found; they are rough, and marked with several arborescent grooves, where the ramifications of the arteries by which they had been nourished during their growing state were lodged. The horns, with the head attached, weighed eighty-seven pounds avoirdupois. The distance between their extreme tips in a right line is nine feet two inches.

"What could have been the use of these immense horns? It is quite evident that they would prevent the animal making any progress through a thickly-wooded country, and that the long, tapering, pointed antlers were totally unfit for lopping off the branches of trees, a use to which the elk sometimes applies his horns, and for which they seem well calculated, by having their antlers short and strong, and set along the edge of the palm, somewhat resembling the teeth of a saw in their arrangement. It would rather appear, then, that they were given the animal as weapons for its protection,—a purpose for which they seem to have been admirably designed; for their lateral expansion is such, that should occasion require the animal to use them in his defence, their extreme tips would easily reach beyond the remotest parts of his body; and if we consider the powerful muscles for moving the head, whose attachments occupied the extensive surfaces of the cervical vertebræ, with the

length of the lever afforded by the horns themselves, we can easily conceive how he could wield them with a force and velocity which would deal destruction to any enemy having the hardihood to venture within their range.

"Head.—The forehead is marked by a raised ridge extended between the roots of the horns; anterior to this, between the orbits and the root of the nose, the skull is flat. Below the orbits, the skull grows suddenly narrower, and the upper parts of the nasal bones become contracted by a depression on either side.

"Teeth.—They do not differ from those of animals of the ruminating class. The incisors were not found, having dropped out; there is no mark of canine teeth; the molars are not much worn down, and are twenty-four in number.

"The skeleton measures, from the end of the nose to the tip of the tail, ten feet ten inches. The spine consists of twenty-six vertebræ; viz. seven cervical, thirteen dorsal, and six lumbar. The size of the cervical vertebræ greatly exceeds that of the other classes, and the spines of the dorsal rise to a foot in height. The necessity of these bones being so marked is obvious, considering the strong cervical ligament, and powerful muscles, required for supporting and moving a head which, at a moderate calculation, must have sustained a weight of three quarters of a hundred of solid bony matter.

"The extremities are in proportion to the different parts of the trunk, and present a conformation favourable to a combination of great strength with fleetness.

"It is not the least remarkable circumstance connected with these bones, that they are in such a high state of preservation as to present all the lines and impressions of the parts which had been attached to them in the recent state. Indeed, if we examine them as compared with the bones of an animal from which all the softer parts have been separated by maceration, the only perceptible differences in their physical properties are, that they are a little heavier, a degree harder; that their surface is brown; and that they all, with the exception of the horns, present a polished appearance, which is owing to the periosteum having been preserved, and still remaining to cover them, as was discovered when they were chemically examined."

CHEMISTRY.—No. VII.

FLUORINE.

(Continued from page 142.)

THIS substance has not been obtained distinctly in an insulated state, and therefore its properties, in its elementary form, are almost unknown. It is found in combination with calcium in the mineral called fluor spar, so abundant in Derbyshire. The chemical name of this substance was formerly Fluete of Lime, as it was supposed to be a compound of fluorine acid and lime; but it is now called fluoride of calcium, since it is found to be composed only of fluorine, (the base of the fluorine acid) and calcium (the base of lime.)

When the fluoride of calcium is reduced to powder, and heated with sulphuric acid, decomposition of the water contained in the sulphuric acid takes place; the hydrogen unites with the fluorine, forming hydro-fluoric acid, which is evolved as a gas, and the oxygen combines with the calcium, converting it into lime. This unites with the sulphuric acid, and forms sulphate of lime. This experiment must be

performed in vessels of lead, or other metal not acted on by sulphuric acid, as the fluoric acid corrodes vessels of glass, or other material containing silica. The gas, as it escapes, should be received in a globular vessel of lead, surrounded by ice, to condense it. Great care should be taken to avoid the fumes, as they are more irritating and noxious than any other known to chemists. The acid in the receiver, which, by means of the ice, is condensed into a liquid, is also a very dangerous substance to experiment with, as a single drop of it, not larger than a pin's head, will produce a malignant ulcer if it touch the skin.

This acid, when diluted with three or four volumes of water, is employed for etching on glass. The gas, as it comes over, will answer the same purpose. This fact may be shewn in a pleasing and satisfactory manner, in the following process.—Cover a square of glass with melted wax, and when it is cold, engrave on it, with a pointed tool or needle, any device or writing. Strew on the bottom of a metallic vessel some finely pounded fluor spar, and cover it with concentrated sulphuric acid; place the glass on the vessel, and apply a gentle heat; the fluoric acid will rise and corrode all those parts of glass which are not defended by the wax. In this experiment, care must be taken to avoid the fumes. When the operation is completed, the wax must be removed, by scraping and washing with hot turpentine, and the glass will be found perfectly etched.

When Sir H. Davy attempted to decompose fluoric acid by voltaic electricity, a small quantity of gas was evolved from the negative pole, which was supposed to be hydrogen; and at the positive, was found a chocolate-coloured powder, which was supposed to be a compound of the fluorine and the platinum wire of the pole. The fluorine could not be separated from this, and the suffocating fumes, which arose during the process, prevented accurate examination.

VARIETIES.

DEPTH OF THE SEA.—The depth of the sea is supposed to extend to four or five miles, as there are mountains of that height on dry land; but until we can find the means of measuring so deep a descent, this must be mere conjecture. Our soundings have not yet been found practicable to the extent of two miles. Dr. Young intimates the mean depth of the *Atlantic Ocean* to be about three miles, and that of the *Pacific*, four miles. . . . But the European seas are less profound. Lyell informs us that "the greatest depth of the *Adriatic*, between Dalmatia and the mouths of the Po, is twenty-two fathoms. The *Mediterranean* varies very much. Between Gibraltar and Ceuta, Captain Smith sounded 950 fathoms (1,900 yards) to a gravelly bottom. Saussure, at Nice, to 2,000 feet. In the narrowest parts of the Strait of Gibraltar, where they are nine miles broad, the depth varies from 160 to 500 fathoms" (from 320 to 1,000 yards). . . . La Place infers that "the depth of the sea is inconsiderable. Its mean depth is of the same order as the mean heights of continents and isles above its level, whose height does not exceed 1,000 metres (1,093 yards). But as high mountains are spread over some parts of the continent, so there may be great cavities in the bottom of the sea." . . . Captain Parry, in 57° N. lat., 24° W. long., about 100 leagues from land, found no bottom, with a line of one mile and 280 yards, which was a quarter of a mile deeper than was reached by Lord Mulgrave; but Mr. Scoresby, in 76° N. lat., 4° W. long., got a line down of 1,200 fathoms, or one mile and 640 yards, without finding a bottom. Mr. Fairholme remarks, that this "is probably the greatest depth of sounding ever attempted."—*Geol. of Script.*

CULTURE.—Earth produces no plant whatever in any country, unless a seed, or some vegetable germ, be first deposited within it.

PLANTING.—All trees, and some flowers, may be planted by slips or branches.

THE HISTORY AND DESCRIPTION OF THE BELL.

(Continued from p. 144.)

THE great bell at St. Peter's in Rome weighs 18,607 pounds. In the Palazzo Vecchio at Florence, is one weighing 17,000 pounds; and it is raised 275 feet from the ground. Great Tom, of Christ Church, Oxford, weighs 17,000 pounds; of Lincoln, 9,894 pounds. The bell of St. Paul's, London, 8,400 pounds.

It is a common tradition, that the bells of King's College chapel, in the University of Cambridge, were taken by Henry V. from some church in France after the battle of Agincourt. They were taken down some years ago, and sold to Phelps, a bell-founder, in Whitechapel.

The Musurgia Universalis of Kircher describes a bell at Erfurth, which was cast in the year 1497, by Gerard Von de Campis, at the expense of the citizens, the neighbouring princes, and noblemen. Its thickness is a quarter and half quarter of an ell; its height, four ells and three quarters; its exterior periphery, fourteen ells and a half; and its weight, 252-cwt. Twenty-four men are required to ring it, besides two men, who on each side push forward the clapper. Its sound is plainly heard at the distance of three German leagues. Its fundamental note is D sol re, but it gives also E faut, making a consonance of a minor third. But from the above account, Sir John Hawkins (Hist. of Music, iv. 211.) has doubted whether the bell is ever rung at all; that is, whether it is ever elevated by a rope and wheel. The action of the twenty-four men is obscurely described; but the two are plainly employed, not in ringing, but in tolling.

A bell in the church of St. Ivan, at Moscow, weighs 127,836 pounds. But the wonder of travellers is the unsuspended bell in the Kremlin of that city. It was cast in 1653, in the reign of the Empress Anne, and a fire took place in the building erected over it. The metal thus became hot; and the water, which fell upon it while in this state, occasioned a fracture, by which it was rendered useless. Dr. Clarke, in his Travels, has given the following account of it:—"It reaches from the bottom of the cave to the roof. The entrance is by a trap door, placed even with the surface of the earth. We found the steps very dangerous; some of them were wanting, and others broken, which occasioned me a severe fall down the whole extent of the first flight, and a narrow escape for my life, in not being dashed upon the bell. In consequence of this accident, a sentinel was stationed afterwards at the trap-door, to prevent people becoming victims to their curiosity. He might have been as well employed in mending the steps, as in waiting all day to say they were broken. The bell is truly a mountain of metal. They relate that it contains a very large proportion of gold and silver, for that, while it was in fusion, the nobles and the people cast in, as votive offerings, their plate and money. It is permitted to doubt the truth of traditional tales, particularly in Russia, where people are much disposed to relate what they have heard, without reflecting on its probability. I have endeavoured, in vain, to assay a small part. The natives regard it with superstitious veneration, and they would not allow even a grain to be filed off. At the same time, it may be said, the compound has a white shining appearance, unlike bell-metal in general; and perhaps its silvery aspect has

strengthened, if not given rise to, a conjecture respecting the richness of its materials. On festival days, the peasants visit the bell as they would a church, considering it an act of devotion, and they cross themselves as they descend and ascend the steps. The bottom of the pit is covered by water, mud, and large pieces of timber, which, added to the darkness, render it always unpleasant and unwholesome, in addition to the danger arising from the steps leading to the bottom. I went frequently there, in order to ascertain the dimensions of the bell with exactness. We applied a strong cord close to the metal, in all parts of its periphery, and round the lower part where it touched the ground, taking care, at the same time, not to stretch the cord. From the piece of the bell broken off, it was ascertained, that we had thus measured within two feet of its lower extremity. The circumference obtained

was sixty-seven feet and four inches, which allows a diameter of twenty-two feet, five inches, and one third of an inch. We then took the perpendicular height from the top of the bell, and found it correspond exactly with the statement made by Hanway, namely, twenty-one feet, four inches and a half. In the stoutest part, that in which it should have received the blow of the hammer, its thickness equalled twenty-three inches. We were able to ascertain this, by placing our hands under water, where the fracture had taken place, which is above seven feet high from the lip of the bell. The weight of this enormous mass of metal has been computed to be 443,772 pounds, which, if valued at three shillings a pound, amounts to 66,565*l*. 16*s*. lying unemployed, and of no use to any one."

(To be continued.)

Literary Review.

32. *The Literary Union; a Monthly Magazine.* Nos. 1, 2, 3. Vol. I. London: Williams. Edinburgh: Black & Co. Dublin: Young.

THIS monthly periodical is conducted by members of the City of London and Western Literary and Scientific Institution, and bids fair, with a little attention, to enjoy a successful rivalry with its older contemporaries. In addition to its cheapness, it has a further recommendation for public patronage, in providing its readers with a faithful record of the transactions of such literary and scientific institutions in the metropolis as are similar to that of the City of London and Western, which is a feature, we believe, not exhibited in other magazines. Respecting its literary merits we can at present say but little; yet we will convey some notion to our readers, by making a short extract from a paper on Poetry, in No. II.

The true poet does not write because he likes to rhyme,—nor because he wishes for such distinction as successful verse may gain for him,—nor because he would astonish his friends, or make a good bargain with a bookseller; neither does he over-anxiously consult the taste which may be fashionable with a versatile public. He writes, because his imagination is fixed, or his feelings moved, by objects of the beautiful or the grand,—because his spirit expands, and his emotions urge him to give them utterance; and he writes in verse, *because the beautiful and the grand in thought or feeling, dictate to him the beautiful and the lofty in language*; because, to use the words of Milton, who must so keenly have felt the power of this natural tendency,—because

"He feeds on thoughts that voluntary move
Harmonious numbers."

There may be works originating in different impulses, that yet obtain temporary success,—that become even highly popular during the life of their authors,—that are puffed by the booksellers, and bepraised by the critics; but there can be no true poetry, nothing destined for immortality of admiration, save that which is the spontaneous effusion of a mind thus filled and expanding with a sense of the great and the beautiful.

The poetry of books is but a train of conventional symbols, by which the writer endeavours to suggest to his readers the poetry of his own mind,—the grand or beautiful images which his mind has conceived,—the emotions of beauty or grandeur which he has felt from the aspects of external nature,—or the lofty, or the tender passions which he has witnessed, or imagined, in the human mind.

The art of the poet consists in making language the best possible communicator to other minds of those

thoughts and feelings which are the true poetry of his own. For this task are required all the finest and noblest powers of language. He has not to inform the intellect only, but to convey feelings the most exalted, and the most delicate of which the human mind is susceptible. For the understanding, his language must possess all attainable perspicuity; for the imagination, it must be to the mental eye, like form and colour to the external sense; for the feelings, it must speak as with the voice of music.

But, for perfect excellence, poetry must present the union of intellect, imagination, and feeling, represented by words that are to the understanding like the clear voice of thought,—to the mental eye like pictures,—and like music to the heart.

33. *Facts, Laws, and Phenomena of Natural Philosophy, &c.* By PROFESSOR QUETELET. Translated and illustrated by Notes. By R. WALLACE, A.M. 12mo. Pp. 360. Glasgow: Sinclair. London: Simpkin and Marshall.

THE numerous subjects in this volume which have occupied the attention of the author, are worthy the perusal of every class of beings, and, generally speaking, are adapted to the capacity of most readers, who doubtless will feel satisfied with its contents; indeed, the production shows the author to be a man of much reading and experience.

34. *Essay on Musical Intervals, Harmonies, &c.* By W. S. B. WOODHOUSE. 12mo. Pp. 84. London: Souter.

THIS essay is superior to the ordinary class of productions, and is not designed for common use, but is fraught with arguments and reflections which will afford amusement and instruction to the intelligent reader. The author has considered the theory of sound, which he treats of with much attention, and has generally expressed himself in clear and nervous language. To professors of music this treatise will be particularly valuable.

35. *A Few Observations on the Natural History of the Sperm Whale.* By T. BEALE, Surgeon. 8vo. Pp. 58. London: Wilson.

THIS publication has the appearance of being exceedingly valuable, and very acceptable to all who busy themselves in the whale fishery, and likewise to every lover

of natural history. The language in which the work is written is clear and perspicuous, and the volume altogether will be found very entertaining. With this amusing extract we will close the notice.

The teeth of the sperm whale are merely organs of prehension, they can be of no use for mastication; and, consequently, we find that the fish, &c., which he occasionally vomits, present no marks of having undergone that process. The manner of the young ones' sucking is a matter involved in some obscurity. It is impossible, from the curious conformation of the mouth, that the young one could seize the nipple of the mother with the fore part of it, for there are no soft lips at this part, but instead, the jaws are edged with a smooth, and very hard, tough, cartilaginous substance; but about two feet from the angle of the mouth, they begin to be furnished with something like lips, which form at the angle some loose folds, soft and elastic; and it is commonly believed by the most intelligent whalers, that it is by this part the young whale seizes the nipple, and performs the act of sucking, and which is doubtless the mode of its doing so. . . . All sperm whales, both large and small, have some method of communicating by signal to each other, by which they become apprised of the near approach of danger; and this they do, although the distance may be very considerable between them, sometimes amounting to four, five, or even seven miles. The mode by which this is effected remains a curious secret. This species of whale is never, or very rarely, seen in soundings; it inhabits the blue, unfathomable ocean; far away from the land it sucks its prey, produces its young, and follows all its natural inclinations. At times it approaches the shore, but only within a certain distance, and where the water is still unfathomable.

TO CORRESPONDENTS.

We regret that the paper on "Friendship," and "A Reflection at Midnight," from a "Subscriber and Constant Reader," are not in a style adapted to our columns.

We will bear in mind the wish of a "Constant Reader," respecting "Virgil;" as to "Chaucer," we are already prepared.

"Z" must wait with a little more patience.

We are obliged to our correspondent of "Bewsey House" for his communication, which shall have an early place.

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PINNOCK'S
GUIDE TO KNOWLEDGE.

No. CLXXIV.

SATURDAY, MAY 23, 1835.

PRICE
ONE PENNY.



DEATH OF WILLIAM RUFUS,

WITH A SHORT ACCOUNT OF PETER THE HERMIT

Soon after the accession of William II. to the crown, the ambition of the monarch, in 1090, led him to disturb his elder brother Robert in the possession of Normandy. The influence of the barons and English nobles, however, interfered in the strife, and brought about an accommodation, in which the chief advantage accrued to William, who obtained possession of a considerable tract of territory. For several years subsequent to this, William found continual employment in different contentions with his subjects and foreign enemies; but the noise and glory of these transient wars and commotions became lost in the tumult of the *Crusades*, which now engrossed the attention of Europe, and exhibited the most durable monument of human folly, A.D. 1096.

The individual most instrumental in effecting this great occurrence was one Peter, commonly called the Hermit. By the pope's permission he preached the *Crusade* through all the chief cities of Christendom; and, by his persuasive powers, men of all ranks flew with the utmost ardour to rescue the Holy Land from the Infidels. The sign of the

cross became the badge of union, and was affixed to their right shoulder by all who enlisted themselves in this sacred warfare.

Robert, duke of Normandy, had early enlisted himself in the *Crusades*, but being unprovided with money for the equipment of himself and his numerous followers, he mortgaged, or rather sold, his dominions to his brother, William Rufus, for the inadequate sum of ten thousand marks, A.D. 1097. The cession of these territories of Normandy and Maine increased the king's possessions, but brought him no great increase of power, because of the unsettled state of those countries, and the turbulent disposition of the barons; and he was obliged to quell in person many insurrections and revolts. In addition to the territories of his brother, the English monarch obtained by mortgage all the possessions of William earl of Poitiers and Guienne, who also wanted money to forward his immense preparations for sharing in the glory of the *Crusades*. The king of England, however, did not live to take possession of this newly acquired territory, although

a fleet and army had been prepared for the purpose. One morning, as was his usual custom, he mounted his horse to pursue his usual favourite diversion of hunting, and was attended by Sir Walter Tyrrel, a French knight, and famous archer, who on that account always accompanied him in those excursions. Towards sunset they found themselves separated from the rest of the party, and were waiting to come up with them, when a stag chanced to pass by. The king let fly an arrow, wounded the animal, and afterwards chaced him, in hopes of seeing him fall. Sir Walter Tyrrel shot at the same stag, but his arrow glanced from a tree, and pierced the king through the heart.

The innocent author of the monarch's death, struck with consternation at the accident, galloped away without being apprehended, reached the sea shore, and embarked for France, where he joined a crusade in an expedition to Jerusalem. The body of William was found in the forest by the country people, and was buried without any pomp, ceremony, or lamentation, at Winchester. Thus fell William Rufus, on the 2d day of August, 1100, in the 44th year of his age, and after a reign of twelve years, ten months, and twenty-three days.

Of the character of this monarch Mr. Echard observes, "that he may be justly ranked among the worst kings that England ever had. He wanted the piety, chastity,

humanity, and wisdom of his father; yet several qualities he possessed were both valuable and admirable, as his courage and bravery, in which he was so vigorous and daring, that he was never dejected in the greatest extremity, and very rarely failed of success. He was liberal to his friends, and especially to soldiers; magnificent in his retinue and buildings, and expensive in his clothes, as appears from the common story of breeches or hose, which he refused to wear because they cost but three shillings, ordering his chamberlain to bring those of a *mark* price, who sufficiently pleased him by bringing the same again after the king's price was set upon them. He was a prince of little or no faith, haughty, severe, covetous, and profane. When fifty English gentlemen, who had been accused of hunting and killing deer, had, by the trial of fire-ordeal, escaped condemnation, he passionately declared that he could not believe that God was a just judge in suffering it. Notwithstanding his severe and covetous temper, there are actions that shew he had sometimes a sense of generosity, justice, and good-nature. His revenues were in all probability the same with his father's, yet, his expenses being greater, he raised more unreasonable taxes: and, to augment his revenues, he frequently kept several bishoprics and abbey vacant, and took the profits to himself. At the time of his death he had in his hands the archbishopric of Canterbury, the

bishoprics of Winchester and Salisbury, and twelve rich abbeys; yet he gave the new church of St. Saviour's, in Southwark, to the monks called De Caritate; and also founded a hospital in York to the honour of St. Peter."

Whether our historians have not been as much too severe in the character of this prince as they were indulgent to his father, is very much questioned: for, though they tell us he was the worst prince that ever reigned—that he was destitute of piety, ehasity, and humanity—and, indeed, will hardly allow him common sense, yet some affirm, that we meet with hardly any other instances of his wickedness, than his keeping the revenues of two or three bishoprics and some vacant abbeys in his hand, and his saying, "No saint could profit a man any thing; and that neither he nor any wise man would make intercession either to St. Peter or any other saint for their help."

These were the actions, and these the sayings, that made the monks and religious of those days look upon him as the most abandoned wretch; and these are the men that had the transmitting of his actions to posterity. But shall his not praying to saints be deemed any impiety by a protestant historian? Or shall we look upon him as the worst of princes, for detaining the revenues of a vacant bishopric or abbey in his hands, when we have seen others, who have met with a much milder censure, seize and lay waste almost all the possessions and revenues of the church? It is possible this prince might be guilty of all the vices he is charged with, for we cannot disprove them at this day; and it is equally as probable he was *not* guilty, since the clergy, who were his mortal enemies, have given us so very few instances of that nature.

As the crusade was the most celebrated circumstance that occurred during the reign of William II., we conclude this article with a brief account of Peter, the Hermit.

This renowned and fanatic individual was born in the eleventh century, of a good family, at Amiens in Picardy. He entered the army, and served under the Counts of Boulogne; but, having imbibed the holy zeal of that age, he quitted the world, and devoted himself to a life of religious solitude and austerity. About the year 1095, he made a devout pilgrimage to Jerusalem, then in the hands of the Turks, and was so deeply affected with the oppressions sustained by the Christian inhabitants, and the visitors of that memorable city, that he waited upon Pope Urban II., and offered his entire energies to rouse the Western nations to arms on behalf of the Christian cause.

The appearance of Peter was mean, his stature small, his body meagre, and his countenance shrivelled; but he had a keen lively eye and a ready eloquence. Receiving encouragement in his design, from the Pope, he set out on his travels as a missionary through the provinces of Italy and France. He rode on an ass, his head and feet naked, and carried a white crucifix: he prayed frequently, fed on bread and water, gave away in alms all that he received, and, by his saintly demeanour and fervid address, drew innumerable crowds of all ranks to listen to his preaching. When he painted the indignities offered to the true believers at the birth-place and sepulchre of their Saviour, every heart was melted to compassion, and animated to revenge. His success in raising recruits for the Holy War was such as might be expected from the rude enthusiasm and martial spirit of his age. Collecting upwards of 200,000 men, he placed himself at their head, in the costume of a hermit, covered with a long tunic of

coarse wool. Walter the Pennyless, a poor but valiant soldier of his acquaintance, obtained the command of the vanguard; and this great mass proceeded on their expedition. Before, however, they reached the place of their destination, the fierce natives of Hungary and Bulgaria rose upon them, and cut them off in such numbers that only a third part, with Peter himself, escaped to Constantinople. Almost all these were afterwards slain by the Turks in the plain of Nice, Peter again excepted, who remained in the Grecian capital. He, however, accompanied the better disciplined army of Godfrey, and was present at the siege of Antioch, in 1097; he afterwards distinguished himself at the siege of Jerusalem, on which account he has obtained immortal renown from the muse of Tasso. After the capture of that city he was appointed by the Patriarch, during the absence of that prelate from Godfrey's army, to act as his vicar-general. At length this great and first mover of the celebrated Crusades died, at the Abbey of New Montier, near Huy, of which he was the founder.

THE MICROSCOPE.—No. II.

IN order to have a thorough knowledge of the nature of microscopic instruments, it is particularly necessary that our readers should previously make themselves acquainted with the principles of *optics*, which is a science that treats of light, and of the instruments by which it is applied to useful purposes.

The rays of light, which minister to the sense of sight, are the most wonderful and astonishing part of the inanimate creation, of which we shall soon be convinced, if we consider their extreme minuteness, their inconceivable velocity, the great and regular varieties of colour they exhibit, the invariable laws according to which they are acted upon by other substances in their reflections, inflections, and refractions; and the facility with which they pervade bodies of the greatest density and closest texture, without resistance, without crowding or disturbing each other: and it is by a peculiar modification of these rays, that we are indebted for the advantages we derive from the microscope.

To render some of the more general principles of optics intelligible to such as are unacquainted with that science, and to enable our readers to comprehend the nature of vision by the microscope, we will place before them, an illustration of a very able optician, which embodies some of the most important. "Darken a room, and let the light be admitted into it only by a small hole; then, if the weather is fine, you will see on the wall, which is facing the hole, a picture of all those exterior objects which are opposite thereto, with all their colours, though these will be but faintly seen. The image of the objects that are stationary, as trees, houses, &c. will appear fixed, while the images of those that are in motion will be seen to move. The image of every object will appear inverted, because the rays cross each other in passing through the small hole. If the sun shines on the hole, we shall see a luminous ray proceed in a straight line, and terminate on the wall. If the eye is placed in this ray, it will be in a right line with the hole and the sun: it is the same with every other object which is pictured on the wall. The images of the objects exhibited on the same plane are smaller in proportion, as the objects are further from the hole." Many and important are the inferences which

may be deduced from the foregoing experiment, among which are the following:—

I. That light flows in a straight line.

II. That a luminous point may be seen from all those places, to which a straight line can be drawn from the point without meeting with any obstacle; and consequently—

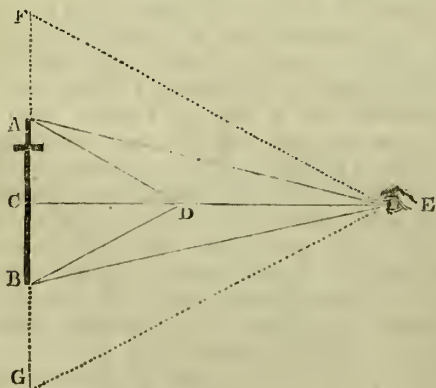
III. That a luminous point, by some unknown power, sends forth rays of light in all directions, and is the centre of a sphere of light which extends indefinitely on all sides; and if we conceive some of these rays intercepted by a plane, then is the luminous point the summit of a pyramid, whose body is formed by the rays, and its base by the intercepting plane. The image of the surface of an object which is pictured on the wall, is also the base of a pyramid or cone of lights, the apex of which is the hole: the rays which form this pyramid, by crossing at the hole, form another similar and opposite to this, of which the hole is also the summit, and the surface of the object the base.

IV. That an object is visible, because all its points are radiant points.

V. That the particles of light are indefinitely small; for the rays which proceed from the points of all the objects opposite to the hole pass through it, though extremely small, without embarrassing or confounding each other.

VI. That every ray of light carries with it the image of the object from which it was emitted.

By this same experiment the nature of vision in the eye may be in some measure illustrated; yet we shall not repeat our observations on this subject, but refer our readers to a few preceding Numbers, in which light and vision have been treated at some length;* and from which we learn that the less the distance is between the eye and the object, the larger the latter will appear. Therefore, the apparent diameter of an object seen by the naked eye may be magnified in any proportion we please; for, as the apparent diameter is increased in proportion as the distance from the eye is lessened, we have only to lessen the distance of the object from the eye in order to increase its apparent diameter. Thus, suppose, as in the following diagram, there is an object A B, which to an eye at E, appears under the angle A E B, we may magnify the apparent diameter in what proportion we please, by bringing our eye nearer to it. If, for instance,



we would magnify it in the proportion of F G to A B, that is, if we would see the object under one angle as large

as F E G, or would make it appear the same length that an object as long as F G would appear, it may be done by coming nearer to the object. For the apparent diameter is as the distance inversely; therefore, if C D is as much less than C E, as F G is greater than A B, by bringing the eye nearer to the object in the proportion of C D to E D, the apparent diameter will be magnified in the proportion of F G to A B, so that the object A B to the eye at D will appear as long as an object, F G would appear to the eye at E. In the same manner it may be shewn, that the apparent diameter of an object when seen by the naked eye may be infinite. For, since the apparent diameter is reciprocally as the distance of the eye, when the distance of the eye is nothing, or when the eye is close to the object at C, the apparent diameter will be the reciprocal of nothing, or infinite. There is, however, one great inconvenience in thus magnifying an object without the help of glasses, by placing the eye nearer to it, which, however, as it would exceed the limits of this paper, we shall defer describing till our next.

ON THE ARRANGEMENT OF THE ANIMAL KINGDOM.

THE most ordinary observations of man enable him to divide living beings into three great sections: those which live on the earth,—those which swim in the water,—and those which fly in the air. But a more particular investigation will manifest, that extreme differences exist between animals possessing the same sphere of locomotion. For instance, the form, both internal and external, peculiar habits, &c. of insects, wholly distinct from birds, demand the separation of the two groups; and the same degrees of difference would divide those which walk from those which creep. This observation of actions then led to the observation of external structure; it was found that a large group of terrestrial beings might be separated from the rest, according to the number of their feet, and were distinguished by the appellation of *Quadruped*, (four-footed.) It was thus that the five great classes were formed: 1. Quadrupeds—2. Birds—3. Serpents—4. Fishes—5. Insects. But when the knowledge of zoology increased, it was found that this general division of animals contained many serious defects. A horse was a quadruped, and so was a tortoise, though the one was clothed with hair, and the other with scales; the one viviparous, the other oviparous. Linnæus being aware of these anomalies, in his *Systema Naturæ*, thus divided the animal kingdom: Viviparous Quadrupeds,—Birds,—Amphibia,—Fishes,—Insects,—and Worms.

The next improvement in the classification of zoology was made by Brisson, a French naturalist, who separated the whales from the fishes, and placed them, in his system, next to the viviparous animals. Linnæus saw the propriety of this distinction, and even carried the principle farther. He rejected the old and defective division, Quadruped, which excluded man, the primary, and the whales, the final genus of this class of beings, and substituted the name *Mammalia*, derived from the Latin, *mamma*, a teat, or udder, which therefore included all the animals which suckle their young. Linnæus had now reached some important points; but since his ages till greater improvements in the system of zoology have been made. Cuvier formed four great divisions—vertebrated, molluscous, articulated, and radiated animals; he subdivided these into classes, and the classes into orders.

* See Pp. 4, 52, 108, 172, 238, 305, 365, Volume II. of "Guide to Knowledge."

The first class (*Mammalia*) of the primary division, named *vertebrata*, from the vertebral column, which supports the head, have four articulated limbs,—a diaphragm between the chest and the abdomen,—a heart, with two ventricles and two auricles,—blood red, and warm,—lungs filling the cavity of the chest, through which the blood passes in the course of circulation. The first five orders possess nails at the extremities, being adapted, more or less, for the purpose of seizing upon objects. The first three orders have three kinds of teeth—the incisive, the canine, and the molar. The first order, *bimana* (man), is distinguished by having hands, (*i. e.* four fingers, and an opposable thumb,) upon the anterior extremities only; the second, *quadrumana*, have hands at four extremities; and the third, *carnivora*, have no opposable thumb at either extremity; the fourth, *rhodentia*, have no canine teeth; and the fifth, *edentata*, no incisive. The orders, *pachyderma*, and *ruminantia*, are distinguished by their extremities being hoofed (*ungulata*), and consequently unfitted for seizure of their food, but used only for locomotion. The eighth order (*cetacea*), have no hind limbs developed, and their anterior limbs are short, resembling fins, by which they are fitted to live in water, though their respiratory organs are formed in such a manner as to make it necessary for them to breathe above the surface. The second class of vertebrated animals, *Aves*, birds, have many parts of their organization similar to the first (*Mammalia*). Their anterior extremities, which stand in the place of the fore legs of the mammals, are wings, and are used by them as the organs of flight. The third class, *Reptilia*, have generally very imperfect limbs, and in some, they are entirely wanting, cold blood, and imperfect respiration. In the fourth class of vertebrated animals, Fishes, the limbs have entirely disappeared, and their place is supplied by fins. They breathe by gills, and consequently are destitute of trachea, larynx, and voice. This class is divided into two sections, *osseous* (bony), and cartilaginous; in some of the latter section, the vertebral column has almost disappeared.

Of invertebrated animals, the first division is *Mollusca*, or molluscous animals, which have the body covered with a shell,—a true circulation of blood through arterial and venous vessels,—respiration by branchiæ, or gills,—a brain, and nervous system. Some species have organs of sight and hearing; whilst others are restricted to those of touch and taste. The next division is *articulata*, articulated animals. The first class *annelida*, have a long body, composed of rings,—respiration by branchiæ,—a system of circulation, and a long knotted cord connected with the nervous system. The animals of the second class, *crustacea*, have the body and limbs articulate,—the outer covering bony, as their name implies,—a system of circulation, and respiration by branchiæ. The third class, *arachnida*, (often mistaken for insects) respire by narrow trachiæ,—undergo no transformation,—have articulated feet, and eyes in their head. The class *insecta*, in most species, undergo transformations,—in their perfect state, have six articulated feet,—two *oculi*, and in some species *stemmata*,—two antennæ, and two trachiæ, which extend through the body.

In the fourth division of the animal kingdom, *Radiata*, the nervous system entirely disappears,—the sexual system cannot be discovered,—the head is no longer found, and sight is extinguished: the whole species border on the vegetable race.

W. V.

MINERALOGY.

PART IV.

(Continued from p. 182.)

PHOSPHORUS is a pale coloured substance of wax-like appearance, so highly combustible, that it cannot be heated, much less melted, in the open air without immediately taking fire. It exists in the mineral kingdom, in some districts, in considerable quantities, but is not generally abundant. It is found combined with one earth only, namely, lime, making a *phosphate of lime*, which is named *apatite*, and of which *moroxite* and *phosphorite* are varieties; but is by no means unfrequently found in combination with *copper*, *iron*, *lead*, *manganese*, and *uranium*, forming the phosphates of those metals. The phosphate of *iron* is distinguished by the name *vivianite*, and that of *uranium*, by *uranite*.

Phosphorus was discovered by Brandt, an alchemist of Hamburg, about 1669. Scheele, the Swedish chemist, first described the mode of obtaining it from bones, now generally practised.

BORON.—The existence of boron was discovered in 1807, by Sir Humphrey Davy, on exposing boracic acid to the action of a powerful galvanic battery. Boracic acid is the compound of boron and oxygen. Native boracic acid is found in the hot springs of Lipari, and of Sasso, in the Florentine territory, and in the craters of some volcanoes. Boron is found most abundant as a native compound of boracic acid, and soda called *borax*. This is chiefly procured from a lake in the interior of the kingdom of Thibet, the edges and shallows of which are covered with a stratum of borax, which is dug up in large masses. Borax, in its rough state is called *tincal*. Boron, the elementary substance obtained from *borax*, is a deep brown powder, possessing neither taste nor smell, and is highly inflammable. In combination with *magnesia*, it forms *boracite* or *borate of magnesia*; in combination with *lime*, it forms *datholite*, or *borate of lime*, of which mineral, *botryolite* is a variety.

NITROGEN enters so little into natural mineral productions, (if we except nitrate of potash (salt-petre), which is found in large quantities in India, and nitrate of soda, which is also found very extensively in South America, and which contain about 14 per cent. of nitrogen), that we shall only observe of it, that it constitutes four-fifths or 80 per cent. of common air, and appears to have been first noticed by Dr. Rutherford, of Edinburgh, in 1772. It was named *azote* by Lavoisier.

SELENIUM is generally found in minute quantities. Its uses in the economy of nature are little known, though its properties somewhat resemble those of sulphur. It was first discovered in 1818, by Berzelius, and is by some chemists thought to be a connecting link between that mineral and the metals. It is principally found in combination with varieties of iron pyrites, or sulphuret of iron. A sulphuret of selenium has been discovered among the volcanic products of the Lepari Islands; and in the mining district of the Hartz, it is found sometimes, and but rarely, associated with lead, cobalt, silver, mercury, and copper, forming *selenuriets* of those metals.

THE METALS have been divided into two classes:—

- I. Those which, by combination with oxygen, yield *Alkalies* and *Earths*.
- II. Those of which the oxides are neither *Earths* nor *Alkalies*.

The first class includes the three metallic bases of the *Alkalies*, viz.

Base.	Alkali.
1. Potassium	Potass.
2. Sodium	Soda.
3. Lithium	Lithia.

Also, the four metallic bases of the four alkaline earths, viz.

Metallic Base.	Resulting Oxides, being Alkaline Earths.
4. Barium	Barytes.
5. Strontium	Strontia.
6. Calcium	Lime.
7. Magnesium	Magnesia.

And lastly, the metallic bases of the earths, their oxides being also earths, viz.

Metallic Base.	Oxides.
8. Aluminum	Alumina.
9. Thorium	Thorina.
10. Glucinum	Glucina.
11. Zirconium	Zirconia.
12. Yttrium	Ytria.
13. Silicium	Silica.

The second class (viz. those metals of which the oxides are neither earths nor alkalies) are divided as follows:—

1. Metals which decompose water at a red heat, being seven in number, viz.

14. Cadmium.	17. Nickell.	19. Tin.
15. Manganese.	18. Iron.	20. Zinc.
16. Cobalt.		

2. Those which, at a red heat, do not decompose water, and the oxides of which are not reducible to a metallic state by the sole action of heat. This class includes

21. Arsenic.	26. Cerium.	31. Titanium.
22. Antimony.	27. Copper.	32. Tellurium.
23. Bismuth.	28. Lead.	33. Vanadium.
24. Chromium.	29. Molybdenum.	34. Uranium.
25. Columbium.	30. Tungsten.	

3. Metals, the oxides of which are decomposed at a red heat, viz.

35. Gold.	38. Osmium.	41. Rhodium.
36. Iridium.	39. Platinum.	42. Silver.
37. Mercury.	40. Palladium.	

The following table, or summary of the metallic bases, may assist our readers, or at least furnish an easy mode of reference to some of their characteristics:—

	Names of Metallic Bases.	By whom discovered.	Date of Discovery.	Specific Gravity as compared with Water.	Degree of Fusibility.	
1	Potassium	} Sir Humphry Davy	1807	0.865	136° Fahr.	
2	Sodium			0.972	190° "	
3	Lithium			8.604	412° "	
4	Barium	} Sir Humphry Davy	1807			
5	Strontium					
6	Calcium					
7	Magnesium	Bussy (France)	1829			
8	Aluminum	Wöhler (Germany)	1828			
9	Thorium	Berzelius (Sweden).....	1829			
10	Glucium	Wöhler	1828			
11	Zirconium	Berzelius	1824			
12	Yttrium	Wöhler	1828			
13	Silicium	Berzelius	1824			
14	Cadmium	Stromeyer	1828	8.604	442° Fahr.	
15	Manganese	Gahn and Scheele	1774	6.850	{ Requires the highest heat of a smith's forge. Rather less fusible than iron. Ditto	
16	Cobalt	Brandt (Hamburg).....	1733	8.538		
17	Nickel	Cronstedt	1751	8.279		
18	Iron	Known to the Ancients ...	....	7.788	442° Fahr. 773° " Fuses readily. 310° Fahr. 497° "
19	Tin	Ditto .....	....	7.291	
20	Zinc	Paracelsus	16th Century	6.861		
21	Arsenic	Brandt	1733	5.883	{ Almost infusible, except before the oxy-hydrogen blow-pipe. Ditto ditto	
22	Antimony	Basil Valentine	1490	6.702		
23	Bismuth	Agricola	1530	9.822		
24	Chromium	Vanquelin	1797	5.900	1996° Fahr. 612° " Same as Chromium. Ditto. Ditto. A little less fusible than lead.	
25	Columbium	Hatchett (England)	1802	....	
26	Cerium	Hisinger and Berzelius ..	1804			
27	Copper	Known to the Ancients ...	....	8.895	Same as Chromium. Ditto. Ditto. A little less fusible than lead.
28	Lead	Ditto .....	....	11.352	
29	Molybdena	Hielm	1782	7.400		
30	Tungsten	D'Elhuyart	1781	17.600	Same as Chromium. Ditto. Ditto. A little less fusible than lead.	
31	Titanium	Gregor (Cornwall)	1791	5.300		
32	Tellurium	Müller	1782	6.115		
33	Vanadium	Del Rio and Stromeyer ...	1830		Same as Chromium. 2016° Fahr. Same as Chromium. 30° Fahr. Same as Chromium. Ditto.	
34	Uranium	Klaproth ..	1789	9.000		
35	Gold	Known to the Ancients ...	....	19.257	
36	Iridium	Descotils and Tennant ...	1803	....	Same as Chromium. 30° Fahr. Same as Chromium. Ditto.
37	Mercury	Known to the Ancients ...	....	13.568	
38	Osmium	Tennant	1803	....	
39	Platinum	Wood (Jamaica)	1741	20.98	Ditto. Ditto. Ditto.	
40	Palladium	} Wollaston (England)	1803	11.3 to 11.8		
41	Rhodium					
42	Silver	Known to the Ancients ....	....	10.474	1873° Fahr.

A FEW PARTICULARS CONCERNING LITERARY PRODUCTIONS.

In the destruction of books, one of the most glaring facts is, that conquerors, with the rashest zeal, destroy the records of the conquered; but, when established in power, they have frequently proved the most ardent patrons of literature, from the principle, that it is their interest to turn aside the public mind from political speculations, and to afford their subjects, or their slaves, the inexhaustible occupations of curiosity, and the consoling pleasures of the imagination.

The project of literary journals originated in 1665, with a councillor in the parliament of Paris, who published his *Essays* in the name of his footman. Our earlier English journals are abortive attempts, only noticing a few publications, and these not with great animation of sentiment, or elegance of diction. The *Monthly Review*, the venerable mother of our improved journals, was commenced in 1749.

There have been ages when, for the possession of a manuscript, some would transfer an estate, or leave in pawn for its loan hundreds of golden crowns; and when the sale, or even loan, of a manuscript was considered of such importance as to have been solemnly registered in public acts. In these times, manuscripts were important articles of commerce; they were excessively scarce, and preserved with the utmost care. A student of Pavia, who was reduced by his debaucheries, derived a new fortune by leaving in pawn a manuscript of a body of laws; and a grammarian, who was ruined by a fire, built his house with the produce arising from the sale of two small volumes of Cicero. At the restoration of letters, the acquisition of a province would not have given so much satisfaction as the discovery of a manuscript but little known, or not known at all.

Fanaticism has aided usurpation in the destruction of literature. The Persians, because they hated the religion of the Phœnicians and Egyptians, destroyed their books, of which Eusebius notices that they had a great number. The Romans burnt the books of the Jews, of the Christians, and the philosophers; the Jews burnt the books of the Pagans and the Christians. On the conquest of Mexico, the missionaries, suspicious that superstition was mixed with the paintings of the Mexicans, collected in the marketplace a little mountain of these precious records, and consumed the memory of many most interesting and curious events. The works of the ancient Pagans were frequently destroyed at the instigation of the monks, who were indefatigable in erasing the best works of the most eminent Greek and Latin authors, in order to transcribe their ridiculous lives of saints on the obliterated vellum. Protestants have burnt the books of Papists, and Papists have retaliated by burning those of Protestants.

VARIETIES.

THE ASH.—Dr. Johnson mentions of the ash, that its winged seeds are so readily borne about by the winds, that no tree is so often met with in ruins and upon ancient walls. It insinuates its roots far into the crevices of these old buildings. In like manner, it fastens upon loose slaty rocks, and adorns them with its verdure. *Flora of Berwick*. . . . The plane has also wings; likewise the pine, though shorter. . . . "Those of the typha, dandelion, and most of the pappous kind, have long and numerous feathers, by which they are wafted every way."—*Grew. Anat.*

THE STURGEON.—"The sturgeon, with a form as terrible, and a body as large, as the shark, is yet harmless. Incapable of unwilling to injure others, it flies from the smallest fishes."—*Goldsm.* "It is a harmless fish, and no way voracious. It never attempts to seize any of the funny tribe, but lives by rooting at the bottom of the sea, where it makes insects and sea-plants its whole subsistence." This great fish must therefore be a very slender feeder. Hence has arisen the German proverb, which is applied to a man extremely temperate, when they say, "He is as moderate as a sturgeon." The sturgeon ought to be as numerous as he is powerful; for Leuwenhoek professes to have reckoned 150,000 millions of eggs in a single roe. This seems extravagance: yet Catesby declares that the female frequently contains a bushel of spawn. Either estimate is surprising.

NOURISHMENT OF PLANTS.—In respect of nourishment, plants differ from animals. In the latter, fulness of feeding advances productivity; but, in plants, where they receive abundant nourishment, their flowers and fruit are long in appearing; but, when the nourishment is feeble, and the vegetable languishes, its reproductive powers act with rapidity. The less nourishment it receives, the more ready it is to reproduce.—*Bull Univ.*

STONES.—No stone or mineral has life. These substances enlarge, but do not grow. Their enlargement is always by exterior accretion—by the successive addition of particles from without them; and never by development from within, nor by a vascular elaboration; nor by a functional chemistry, varying in each species, and producing specific products.—*Turner.*

FLOWERS.—Some flowers follow the path of the sun. The ripe ears of corn in a whole field, will be found during the day-light to incline to the south, though they return to a different position at night. Sir J. Smith observes, "It is an invariable circumstance, that plants always turn their stem and leaves to the light, not towards the air. If in a hot-house, the door of which is left open, we shall yet always find them inclining to that side where the light is, let the air come in whence it may."

FISH.—If fish and the other occupiers of the ocean are sensitive to pain and fear, they are as susceptible of pleasurable feelings. They have the appearance of a placid and contented state of existence. No bird or quadruped seems happier. None have fewer wants; none require less means in order to be comfortable: they need only food; and yet they can subsist even without this when the abstinence is necessary. They suffer nothing from inclemency of weather, or variations of the seasons; nothing from heat, cold, frost, rain, or bitter winds. They seem to be generally exempted from disease. They are always in one even temperature; they enjoy a longer continuity of health and strength than most other animals; and from these causes appear to possess a natural longevity, which in some of their classes surpasses that of man.

COAL.—The British Islands possess one of the most extensive deposits of coal yet discovered. But though it exists more largely than is known, yet it has not been hitherto found very extensively in Europe.

THE STARRY HEAVENS.—Look up, and behold the eternal fields of light which lie around the throne of God. Had the stars never appeared in the heavens, to man there would have been no heavens; but he would have laid himself down to his last sleep in a spirit of anguish, as upon a gloomy earth, vaulted over by a material arch, solid and impervious.—*Richter.*

THE WORLD.—We are therefore philosophically entitled to say, that this world, whose scientific construction appears more wonderful the more it is contemplated and understood, and the study and apprehension of whose embodied science have enlarged and elevated the human genius to its loftiest sublimity and most enduring fame, must have been framed by a transcendent supernatural agency; and could not otherwise have become what it is:—neither could it, without the continued aid or cooperation of the same superhuman Power, remain what it is,—so firm, so unbroken, so undecaying, and so beautiful as we every where discern it to be. For it is a vast complication of multifarious parts—a very artificial arrangement of heterogeneous things, none of whose particles are in their original or natural state; and the whole, and every portion,—all that is in it, or upon it,—are in continual motion, action, reaction, and counteraction.—*Sharon Turner.*

THE EARTH WAS NOT ETERNALLY AS IT NOW IS.—All visible nature is a multifarious association of very compounded substances. Nothing is simple—nothing is uncompounded. Every thing we see, feel, or handle, is composition, a mixture of more particles, or of more elements than one. Not merely the grosser earthly bodies are so, but even the water, the air, and the light, are in this compounded state. Now it is impossible that any compound can have been eternally a compound. Composition and eternity are as incompatible as—to be, and not to be. The particles of which compounds consist must have been in some other state before they were compounded together. The school-boy perceives at once that his plum-cake cannot have been eternal. The plums,

the flour, the butter, the eggs, and the sugar, of which it is composed, must have been in some other places, and state, before they were brought together to make the substance which gratifies him. So the mighty world we live on, the rocks, the mountains, the minerals—so every substance around us, animate and inanimate, cannot have been eternal, because every one is a combination of numerous particles, usually very heterogeneous,* and the primary elements of each must have been in their elementary state, and in some other position, before they moved and joined into their compound one.—*Sharon Turner, Esq.*

* *Heterogeneous* means—unlike, of a totally opposite nature.

Literary Review.

43. *A History of British Fishes* By W. YARRELL, F. L. S. Parts I. II. 8vo. Pp. 96. London: Van Voorst.

This admirable work is to be completed in fourteen monthly Parts, each illustrated with numerous wood-cuts. In Part I. our author gives us fifteen species, with nine illustrative vignettes, conveying to us a great deal of useful and amusing information. The extract following deserves notice:—

It may be considered as a law, that those fish that swim near the surface of the water have a high standard of respiration, a low degree of muscular irritability, great necessity for oxygen, die soon,—almost immediately, when taken out of water, and have flesh prone to rapid decomposition. On the contrary, those fish that live near the bottom of the water have a low standard of respiration, a high degree of muscular irritability, and less necessity for oxygen; they sustain life long after they are taken out of the water, and their flesh remains good for several days. The carp, the tench, the various flat fish, and the eel, are seen gaping and writhing on the stalls of the fishmongers for hours in succession; but no one sees any symptom of motion in the mackerel, the salmon, the trout, or the herring, unless present at the capture. These four last named, and many others of the same habits, to be eaten in the greatest perfection, should be prepared for table the same day they are caught; but the turbot, delicate as it is, may be kept till the second day with advantage, and even longer without injury; and fishmongers generally are well aware of the circumstance, that fish from deep water have the muscle more dense in structure,—in their language, more firm to the touch,—that they are of finer flavour, and will keep longer, than fish drawn from shallow water.

Part II. is equally as attractive and valuable as the First Part; both of which we strongly recommend to public favour. With Mr. Yarrell's amusing account of the river *Bullhead*, nick-named the *Miller's Thumb*, we will close this notice:—

The head of the fish is smooth, broad, and rounded, and is said to resemble exactly the form of the thumb of a miller, as produced by a peculiar and constant action of the muscles, in the exercise of a particular and most important part of his occupation. It is well known, that all the science and tact of a miller is directed so to regulate the machinery of his mill, that the meal produced shall be of the most valuable description, that the operation of grinding will permit

when performed under the most advantageous circumstances. His profit or his loss, even his fortune or his ruin, depends upon the exact adjustment of all the various parts of the machinery in operation. The miller's ear is constantly directed to the note made by the running-stone in its circular course over the bed-stone, the parallelism of their two surfaces, indicated by a particular sound, being a matter of the first consequence: and his hand is as constantly placed under the meal-spout, to ascertain by actual contact, the character and qualities of the meal produced. The thumb, by a particular movement, spreads the sample over the fingers; the thumb is the gauge of the value of the produce, and hence have arisen the sayings of, 'Worth a miller's thumb,' and, 'An honest miller hath a golden thumb;'—in reference to the amount of the profit that is the reward of his skill. By this incessant action of the miller's thumb, a peculiarity in its form is produced, which is said to resemble exactly the shape of the head of the fish constantly found in the mill-stream, and has obtained for it the name of the *Miller's Thumb*, which occurs in the comedy of 'Wit at several Weapons,' by Beaumont and Fletcher, Act v. Scene i.; and also in Merrett's 'Pinax.' All though the improved machinery of the present time has diminished the necessity for the miller's skill in the mechanical department, the thumb is still constantly resorted to as the best test for the quality of flour.

44. *Historical Epitome of the Bible, &c.* By A MEMBER OF THE CHURCH OF ENGLAND. 4th Edition. 12mo. Pp. 438. London: Whittaker.

A very plain and serviceable volume for young people, affording them in a pleasing manner much information respecting the characters and doctrines of the Holy Scriptures.

45. *A Voyage round the World.* By LIEUT. JAMES HOLMAN, R. N. Vol. III. 8vo. Pp. 473. London: Smith, Elder, and Co.

This third volume of the series supports the character of its predecessors, and contains very many valuable remarks and much interesting matter. The author's observations on the Tortoise Shell will be read with attention:—

The shell of the sea-tortoise has always been a considerable article of export from these islands (Ley-

chelles,) and it is the most profitable article that many of the inhabitants have the means of procuring. When the female tortoise is about to lay her eggs, she creeps up the gentle acclivity of some sandy beach, until she attains a height where her instinct tells her the waves of the sea do not reach; here she makes a hole with her flappers, and after depositing a number of eggs, commonly from ninety to one hundred, she covers them with sand and retires, leaving the progeny to be hatched by the piercing rays of the sun. Allowing an interval of a few days, she returns a second and a third time, until she has completed her brood, and it is at this period the animal is taken, by coming upon her suddenly, and turning her on her back. . . The plan adopted for securing the young ones, is by searching for the places where the eggs have been deposited, and inclosing the spot with small sticks, so that, immediately the young tortoises make their appearance above the sand, they may be removed to an enclosure made in shallow water for that purpose, and fed on fish, &c. . . Tortoises are also taken at sea: the season for striking them being from July to December. The equipment of a canoe for this purpose is as follows: three blacks to row, one to steer, and one in the bow, to strike the tortoises, holding in his right hand a slender wooden shaft, at the end of which is an iron point, to which is attached a cotton line several fathoms in length. The moment the tortoise feels himself wounded, he either starts ahead, dragging the boat after him, or dives to the bottom in hopes of obtaining shelter under the coral branches. The shell of the tortoise is divided into lamina or plates, of from five to eight inches square, and the average price is between seven and eight dollars the pound. Green turtle are also taken in the above manner; but they are easily distinguished from the tortoise, the shell being perfectly smooth, and not in scales. They are also about one-third larger than the tortoise, with the head differently shaped, and generally of a darker colour.

TO CORRESPONDENTS.

"A. M.'s" poetry is not adapted to our paper.

We have received "H.'s" communication, and will examine it by our next publication.

"N. N." would oblige us by sending his address.

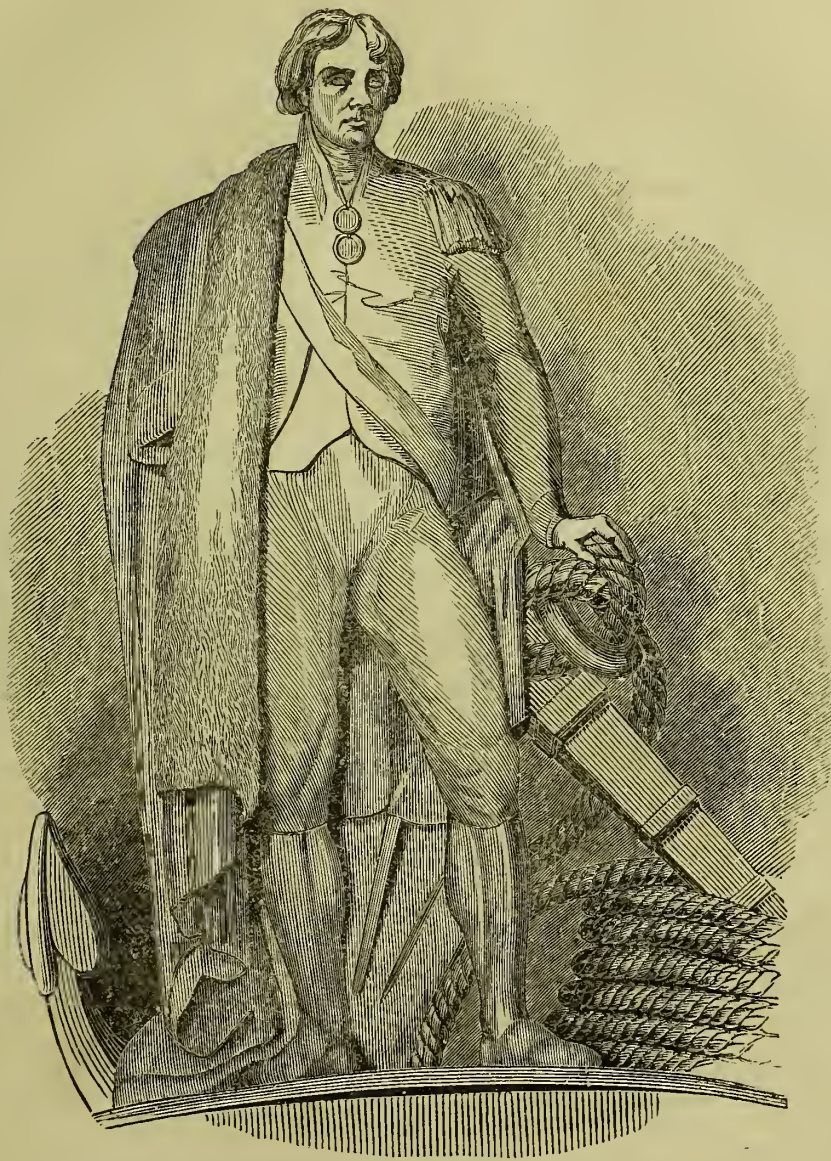
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PINNOCK'S
GUIDE TO KNOWLEDGE.

No. CLXXVI.]

SATURDAY, JUNE 6, 1835.

PRICE
ONE PENNY



Nelson's Monument, in St. Paul's Cathedral.

THE BATTLE OF THE NILE.

PREVIOUS to the ever-memorable battle which we are about to record, the gallant Nelson had been actually engaged against the enemy *one hundred and twenty times*; had lost his right eye and arm, and been otherwise severely wounded. Great, however, as had been the services of this enterprising and skillful seaman, it was in the year 1798 that a victory of the most important and glorious kind entitled him to still more distinguished laurels. The government of France had sent an expedition of magni-

tude into Egypt, and it became that of Britain to use every effort to neutralise or destroy it.

The French fleet, with Buonaparte and his well-appointed army on board, had left Toulon on the 22d of May; but it was not till the 8th of June that Sir Horatio Nelson, (who had been sent by Earl St. Vincent into the Mediterranean, with a small squadron, in the hope of discovering them,) was joined by the main body of the fleet, viz. eleven sail of the line, under Captain Trowbridge,

which had been despatched to reinforce him. No instructions, however, were sent to him in regard of the course he was to steer; nor was there any certain information to be obtained respecting the destination of the French expedition. The admiral was therefore left entirely to his own judgment; but he knew that the enemy had sailed with a north-west wind, which naturally led him to conclude that their course was up the Mediterranean. He first steered towards Corsica and Elba, then made towards the Roman coast, and afterwards bore upon Naples, in the hope of receiving some satisfactory information; but the most he could learn was, that though many thought the plundering of Algiers was the object of the French armament, yet a more general report was current that they

had gone to Malta. At Sicily, he obtained intelligence from the British consul that Malta had actually surrendered; and soon afterwards, it was known that the French had left that island on the 18th, with a fresh gale from the north-west. Nelson was not long in determining what course he should take, and made the signal to bear-up and steer to the south-east with all possible sail. From that day, till the 29th, only three vessels were spoken with, two of which had come from Alexandria, and had not seen anything of the enemy's fleet; the other had come from the Archipelago, and had, likewise, seen nothing of them. At length, arrived at Alexandria, and no sign of an enemy, nor any intelligence that a French fleet was probably on its way thither, it became the subject of deep

and anxious deliberation with the admiral what course the French fleet could possibly have taken, and what was its ultimate destination.

It would be tedious, however, to enter into further details of the pursuit; suffice it to say, that, after visiting both shores of the Mediterranean, and carrying a press of sail night and day, the British fleet again reached Alexandria on the 1st of August, where the admiral had the satisfaction of seeing the French flag flying in the harbour. He had the highest opinion of his crew, and justly placed the firmest reliance on the valour and conduct of every captain in his squadron. It had been his practice, during the whole of the cruise, whenever the weather and circumstances would permit, to have his captains on board the *Vanguard*, where he would fully develop to them his ideas of the best modes of attack, and such plans as he proposed to execute upon falling in with the enemy, whatever their situation or position might be, by day or night; there was no possible condition in which they could be found, that he did not take into his calculation, and for the most advantageous attack of which, he had not digested and arranged the best possible disposition of the force which he commanded.

The enemy's fleet was first discovered by the *Zealous*, Captain Hood, who immediately communicated, by signal, the number of ships (sixteen) lying at anchor in line of battle, in a bay upon the larboard bow, which was soon found to be Aboukir Bay. The admiral hauled his wind that instant, and made the signal to prepare for battle, by an attack on the enemy's van and centre, as they lay at anchor, and according to a plan he had before developed. His idea, in this disposition of his force, was first to secure the victory, and then to make the most of it, as circumstances might permit. As all the officers of the British fleet were totally unacquainted with Aboukir Bay, each ship kept sounding as she stood in. The enemy appeared to be moored in a strong and compact line of battle, close in with the shore, their line describing an obtuse angle, in its form, flanked by numerous gunboats, four frigates, and a battery of guns and mortars on an island in their van. This situation of the enemy seemed to secure to them the most decided advantages, as they had nothing to attend to but their artillery, in their superior skill in the use of which the French so much prided themselves, and to which, indeed, their splendid series of land victories were, in general, chiefly to be attributed.

The position of the enemy presented the most formidable obstacles; but Nelson viewed these with the eye of a seaman determined on attack; and it instantly struck his eager and penetrating mind, that where there was room for an enemy's ship to swing, there was room for another of ours to anchor. The admiral's designs were fully known to the whole squadron, as was his determination to conquer or perish in the attempt. The *Goliath* and *Zealous* had the honour to lead inside, and to receive the first fire from the van ships of the enemy; and the remainder of the ships took their respective stations with promptitude and alacrity. The action commenced at sun-set, which was at half-past six, P. M. with an ardour and vigour which it is impossible to describe. At about seven o'clock total darkness had come on; but the whole hemisphere was, at intervals, illuminated by the fire of the hostile fleets. Our ships, on its becoming dark, had all hoisted their distinguishing lights, by a signal from the admiral. The van ship of the enemy, *Le Guerrier*, was dismasted

in less than twelve minutes; and in ten minutes after, the second ship, *Le Conquerant*, and the third, *Le Spartiate*, very nearly at the same moment, were all dismasted. *L'Aquilon* and *Le Souveraine Peuple*, the fourth and fifth ships of the enemy's line, were taken possession of by the British at half-past eight in the evening. At ten minutes after nine, a fire was observed on board *L'Orient*, the French admiral's ship, which soon involved the whole of the after-part of the ship in flames. This circumstance being communicated to Nelson, who was at that time below, suffering severely from a wound he had received, he came upon deck, where the first consideration that struck his mind was the desire to save as many of the crew as possible, by every practicable exertion that could be used; and with the aid of such of our boats as could be got ready, upwards of seventy Frenchmen were saved. The light thrown by the fire of *L'Orient* upon surrounding objects enabled the British to perceive with more certainty the situation of the two fleets, the colours of both being clearly distinguishable. The cannonading was partially kept up to leeward of the centre till about ten o'clock, when *L'Orient* blew up with a most tremendous explosion. An awful pause and death-like silence, for about three minutes, ensued, when the wreck of the masts, yards, &c. which had been carried to a vast height, fell down into the water, and on board the surrounding ships. After this awful scene, the firing recommenced with the ships to leeward of the centre till twenty minutes past ten, when there was a total cessation of firing for about ten minutes; after which, it was revived till about three in the morning, when it again ceased. When the victory had been secured in the van, such British ships as were in condition to move, had gone down upon the fresh ships of the enemy. At five in the morning, the rearmost two, *Le Guillaume Tell*, and *Le Généreux*, were the only French ships of the line that had their colours flying; and, together with two frigates, they subsequently cut their cables, stood out to sea, and escaped. The whole of the day was occupied in taking possession, and securing the prizes.

Knowing that the wounded in his own ships had been well taken care of, the gallant admiral bent his first attention to those of the enemy. He established a truce with the commandant of *Aboukir*, and through him made a communication to the commandant of *Alexandria*, that it was his intention to allow all the wounded Frenchmen to be taken ashore to proper hospitals, with their own surgeons to attend them; a proposal which was carried into effect the next day.

The Arabs and Mamelukes, who, during the battle, had lined the shores of the bay, saw with transport that the victory was decidedly ours; and on that and the two following nights the whole coast and country were illuminated in celebration of it. This had a great effect upon the minds of the French prisoners; as they conceived that this illumination was the consequence not entirely of the naval victory, but as some signal advantage obtained by the Arabs and Mamelukes over Buonaparte's army.

By the admiral's desire, communicated to the captains of the fleet, "a general thanksgiving to Almighty God, for having blessed His Majesty's arms with victory," evinced his sense of pious gratitude to the Supreme Being, for the signal success which, by his Divine favour, had crowned his exertions on that memorable day; and it was remarked by some of the French officers, our prisoners, "that it was no wonder we could preserve such order and discipline, when we could impress the minds of

our men with such sentiments after a victory so great, and at a moment of such seeming confusion."

Having thus given, in the form of a narrative, the leading events of the "Battle of the Nile," it would be superfluous, and at this period, tedious, to lay before our readers the public despatches. Nelson declared, that "the high state of discipline and valour both of officers and men of every description, were irresistible;" and observes, "could any thing from my pen add to the characters of the captains, I would write it with pleasure, but that is impossible."

The English fleet consisted of thirteen 74-gun ships, one of 50 guns, and a brig. The French had one of 120 guns (*L'Orient*, burnt); three of 80 guns (two of which were taken, and one escaped); nine of 74 guns (of which eight were taken, and one escaped); and four frigates, two of which were destroyed. The loss of lives on the side of the French was prodigious; nor was it small on that of the British; 16 officers and 202 men being returned as killed; and 37 officers and 640 men wounded.

We have, as before observed, intentionally omitted the public despatches received on this occasion; but as we think it cannot but be gratifying to every well-disposed mind to hear a parent's account of so noble and distinguished a son, we insert a letter from the admiral's father (the Rev. Mr. Nelson), in answer to one of a congratulatory character on the battle of the Nile, from his friend the Rev. Brian Allot. It runs as follows:—"My great and good son went into the world without fortune, but with a heart replete with every moral and religious virtue; these have been his compass to steer by; and it has pleased God to be his shield in the day of battle, and to give success to his wishes, to be of service to his country. The country seems sensible of his services; but should he ever meet with ingratitude, his scars will plead his cause: for at the siege of Bastia, he lost an eye; at Teneriffe, an arm; on the memorable 14th of February, he received a severe blow on his body, which he still feels, and now a wound on the head. After all this, you must believe his bloom of countenance must be faded; but the spirit beareth up yet as vigorous as ever. On the 29th of September, he completed his 40th year—cheerful, generous, and good; fearing no evil, because he has done none; an honour to my grey hairs, which, with every mark of old age, creep fast upon me."

We conclude by observing, that, as some reward for the valour and discretion displayed by our hero on this occasion, his own sovereign bestowed on him the honours of the peerage, by the title of Baron Nelson, of Thorpe, in the county of Norfolk, and of the Nile; and his Sicilian Majesty created him duke of Bronte, in Naples.*

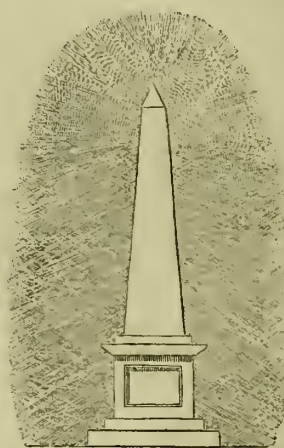
* The biography of Nelson we have given at some length in Nos. CXL. and CXLI. Vol. II.

MICROSCOPE.—No. III.

WE promised, in our last paper on the microscope, in page 188, to describe the inconvenient effects that would arise from placing the eye nearer than ordinary to an object, without the use of glasses.

It is known that objects to persons generally (we of course allude not to such as have imperfect vision—the

short-sighted and the distant-sighted) must be placed at a distance from the eye of about five or six inches to be seen distinctly, and that if the object be brought within that distance, and without the intervention of glasses, how great soever it may be magnified, it will be discerned very confusedly. This arises from the extreme minuteness of the atoms of light, and from the circumstance of the several rays, as they proceed from an object, continually diverging; so that the less the distance of that object is from the eye, the fewer rays enter it, and consequently less sensible is the impression of that object made upon the organ of sight. This shews how necessary it is that a great number of rays of light should proceed from the surface of an object to render it visible; and, as we have just observed, that the rays of light continually diverge from an object in the manner shewn in the following engraving, so have different means been



invented, either for uniting them in a certain point, or of separating them.

The means hitherto adopted for effecting these important objects are glasses, called lenses, which, according to their shape, size, and position relative to one another, are capable of uniting, in the same sensible point, a great number of rays proceeding from one point of an object, or of separating such rays to any extent. As each ray of light carries with it the image of that point whence it proceeds, *all* the rays of light proceeding from that point, if united, must form an image of that object whence they were emitted. And in proportion as there are *more or less* rays united, so will the object be more or less bright; and further, in proportion as the *order* in which they were emitted is the better or worse preserved in their union, so will the object be more or less distinct.

The various glasses or lenses used in *optics* we have previously described in page 53, Vol. II., and the precise point in which the rays of light meet after passing through a convex glass lens, we have there also observed, is called the *focus*. And again, as light invariably proceeds from a luminous body in straight lines without the least deviation; yet, if it happen to pass from one medium to another, it alters its course, taking the direction given to it by the fresh medium; and in this new direction it proceeds in a straight line, till, meeting with a different medium, it again deviates.

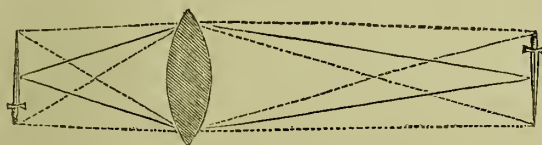
If certain parallel rays of light, such as 1, 2, 3, 4, 5, 6, 7, in the following diagram, fall directly upon a convex lens,



A B, they will be so bent as to unite in a point C behind the lens, which may be called the focus of the lens. Now here, the ray 4, which falls perpendicularly upon the middle, or *axis*, of the glass A B, will go through it without any refraction; while those which pass through the sides of the same lens, by falling obliquely on its surface, will be so bent as to meet the central ray 4 at the focus C. At this focal point all the rays cross the middle ray, diverging from it to the contrary side, and in precisely the same manner as they were before converged; but, at the same time, their position is inverted, the rays being at the top in the first instance, and at the bottom in the second. Again, if another lens, D E, of the same convexity as A B, be placed in the rays, and at the same distance from the focal point C as A B is from C, the rays will be again refracted, and go out of D E in a parallel direction, precisely similar to that in which they first entered A B, but still inverted, as is shewn above.

From this illustration we also learn, that rays of light from any luminous point (as C) *diverge* as from a principal focus, and that when these *diverging* rays are refracted by a convex lens, they proceed from it in a parallel direction, which we have before observed is the only direction in which the human eye can have distinct vision respecting an object,—a circumstance owing to the retina of the eye, on which the image is painted, being placed in the focus of the crystalline humour, which may be considered a kind of lens, entirely adapted for the collecting of parallel (or nearly parallel) rays of light, so as to form an image of the object whence they are emitted upon the bottom of the eye.

Upon this principle, an object beyond the focus of a lens, or suppose the crystalline humour of the eye, will emit rays of light from every point on its surface; these falling upon the lens, and passing through it, will be converged into as many points on the opposite side of the lens, and form an inverted image of the object, thus:—



But if the object is brought nearer the lens (or eye), the image will be formed farther off, or larger; and if the object be placed at the direct focus of the lens (or eye), the rays diverging will, in consequence, go out parallel, and form no image at all. "The picture, or image, formed by a convex lens is either larger or less than the object, in proportion as its distance from the lens is greater or less than its distance from the object."

There is a certain distance at which, in the general business of life, we are accustomed to see objects; and though the size of the image of these objects changes considerably when they move from, or approach nearer to us, yet we do not perceive that their size is much altered; but beyond this certain distance, we find the objects appear to be diminished or increased, in proportion as they are more or less distant from us. From hence it is also evident, that when we place a glass between the object and the eye, which, from its figure, changes the direction of the rays of light from the object, this object ought not to be judged as if it were placed at the ordinary reach of the sight; when we judge of its size more by habit than by the dimensions of the images formed on the retina.

Our next paper will enter into a description of microscopic instruments.

BARDS.

BARD, in antiquity, denotes one who was a poet by genius and profession, and "who sung of the battles of heroes, or the heaving breasts of love." Lord Kaimes justly observes in his Sketches, that "the curiosity of man is great with respect to the transactions that are described in verse; accompanied with music, the performance is enchanting. An ear, a voice, skill in instrumental music, and, above all, the poetical genius, are requisite to excel in that complicated art." As such talents are rare, the few that possessed them were highly esteemed; and hence the profession of a bard, which, besides natural talents, required more culture and exercise than any other known art.

BARDS, anciently, were the chief persons at every festival and every solemnity. Their songs, which, by recording the achievements of kings and heroes, animated every hearer, must have been the entertainment of every warlike nation. Demodocus is mentioned by Homer as a celebrated bard; and Phemius, another bard, is introduced by him, deprecating the wrath of Ulysses, and urges him to

— "Spare the poet's ever gentle kind.
A deed like this thy future fame would wrong,
For dear to gods and men is sacred song.
Save then the poet, and thyself reward,
'Tis thine to merit, mine is to record."

Cicero reports, that at Roman festivals, anciently, the virtues and exploits of their great men were sung. The same custom prevailed in Peru and Mexico, as we learn from Garsilasso and other authors. We have for our authority Father Gobien, that even the inhabitants of the Marian islands have bards who are greatly admired, because in their songs are celebrated the feats of their ancestors.

Bards—Celtic, British, &c.—In no part of the world did the profession of bards appear with such lustre as in Gaul, in Britain, and in Ireland. Wherever the Celtæ, or Gauls, are mentioned by ancient writers, we seldom fail to hear of their druids and their bards; the institution of which two orders was the capital distinction of manners and policy. The druids were philosophers and priests; the bards their poets, and recorders of heroic actions: and both these orders seem to have subsisted among them, as members of the state, from time immemorial. The Celtæ possessed, from many remote ages, a system of discipline and manners which appear to have had a deep and lasting influence. Ammianus Marcellinus gives them this testimony, that they cultivated the study of the most laudable arts introduced by the bards, who sung in heroic verse the gallant actions of illustrious men; and by the druids, who lived together in colleges or societies, after the Pythagorean manner, and, philosophizing upon the highest subjects, asserted the immortality of the soul. Though Cæsar, in his account of Gaul, does not expressly mention the bards, yet it is plain, that under the title of druids, he comprehends the whole college or order; of which the bards, who probably were the disciples of the druids, undoubtedly made a part. According to his account, the druidical institution first took rise in Britain, and passed from thence into Gaul; so that they who aspired to be thorough masters of that learning were wont to resort to Britain. He adds, too, that such as were to be initiated among the druids, were obliged to commit to their memory a great number of verses, inso-

much that some employed twenty years in this course of education; and that they did not think it lawful to record these poems in writing, but sacredly handed them down by tradition from race to race. So strong was the attachment of the Celtic nations to their poetry and their bards, that amidst all the changes of their governments and manners, even long after the order of the druids was extinct, and the national religion altered, the bards continued to flourish, not as a set of strolling songsters, like the Greek *ῥαψοδισταί*, or rhapsodists, in Homer's time, but as an order of men highly respected in the state, and supported by a public establishment. We find them, according to Strabo and Diodorus, before the age of Augustus; and we find them remaining under the same name, and exercising the same functions as of old, in Ireland, and in the north of Scotland, almost down to our own times. It is well known that, in both these countries, every regulus or chief had his own bard, who was considered an officer of rank in his court.

Of the honour in which the bards were held, many instances occur in Ossian. They were the ambassadors between contending chiefs, and their persons were held sacred. "Cairbor feared to stretch his sword to the bards, though his soul was dark. Loose the bards (said his brother Cathmor), they are sons of other times. Their voice shall be heard in other times, when the kings of Temora have failed."* They and the druids were exempted from taxes and military services, even in times of the greatest danger; and when they attended their patrons in the field, to record and celebrate their great actions, they had a guard assigned them. At all public assemblies they were seated near the person of the king or chieftain, and sometimes even above the greatest of the nobility and chief officers of the court. Nor was their profession less lucrative than it was honourable. Besides the valuable presents which they occasionally received from patrons, they had estates in land allotted for their support. So great was the veneration which the princes of those times entertained for their poets, and so highly were they delighted with their strains, that they sometimes pardoned even their capital crimes for a song. We may reasonably suppose that a profession so honourable and advantageous would not be deserted. It was indeed much cultivated; and the accounts we have of the number of bards in some countries, particularly in Ireland, is hardly credible. We often read, in the poems of Ossian, of one hundred bards belonging to one prince, singing and playing in concert for his entertainment. Every chief bard was allowed to have thirty bards of inferior note constantly about his person; and every bard of the second rank was allowed a retinue of fifteen poetical disciples.

Though the ancient South Britons had originally the same taste and genius for poetry with those of the north, yet none of their poetical compositions have been preserved. Nor can we be surprised at this. After the provincial Britons had submitted to the Roman government, yielded up their arms, and lost their martial spirit, they could take little pleasure in hearing or repeating the songs of their bards in honour of the glorious achievements of their brave ancestors. The Romans, though they did not exercise the same barbarous policy which was long after practised by Edward I., of putting the bards to death, would at least discourage them, and discountenance the repetition of their poems. These sons

of the song being thus persecuted by their conquerors, and neglected by their countrymen, either abandoned their country or their profession; and their songs, being no longer heard, were soon forgotten. It is probable that the ancient Britons, as well as many other nations of antiquity, had no idea of poems that were made only to be repeated, and not to be sung to the musical instruments. In the first stages of society in all countries, the two sister arts of poetry and music seem to have been always united; every poet was a musician, and sung his own verses, to some musical instrument. This we are directly told, by two writers of undoubted credit, was the case in Gaul, and, consequently, in Britain, at this period. "The bards," says Diodorus Siculus,* "sung their poems to the sound of an instrument not unlike a lyre." "The bards, according to Ammianus Marcellinus,† "celebrated the brave actions of illustrious men in heroic poems, which they sung to the sweet sound of the lyre." This account is confirmed by the general strain, and by many particular passages of the poems of Ossian. "Beneath his own tree, at intervals, each bard sat with his harp; they raised the song and touched the string, each to the chief he loved." The invention of writing made a considerable change in the profession of the bards. It is now agreed, that no poetry is fit to be accompanied with music, but what is simple: a complicated thought or description requires the utmost attention, and leaves none for the music; or, if it divides the attention, it makes but a faint impression. The simple operas of Quinault bear away the palm from every thing of the kind composed by Boileau, or Racine, who were poets of a higher order. But when a language is enriched with a variety of phrases fit to express the most elevated thoughts, men aspired to the higher strains of poetry, leaving music and song to the bards, which distinguished the profession of a poet from that of a bard. Homer, in one sense, may be termed a bard, for in that character he strolled from feast to feast; but he was not a bard in the original sense. He, indeed, recited his poems to crowded audiences; but his poems are too complex for music; and he probably did not sing them, nor accompany with the lyre. The troubadours of Florence were bards in the original sense, and made an excellent figure in the days of ignorance, when few could read, and fewer write. In later times, the songs of the bards were taken down in writing, which gave every one access to them without a bard; and the profession sunk by degrees into oblivion. Among the highlanders of Scotland, reading and writing in their own tongue is not common even at present; and that circumstance supported long the bard profession among them, after it was dropped among the neighbouring nations.

Among the ancient British bards, the most celebrated is the great Merlyn, whose true name, according to Llyud, was Merdhym. The genealogical sonnets of the Irish bards are still the chief foundations of the ancient history of Ireland. In the highlands of Scotland, there are considerable remains of many of the compositions of their old bards still preserved; but the most genuine, entire, and valuable remains of the works of the ancient bards, and perhaps the noblest specimen of uncultivated genius, are the poems of Ossian, son of Fingal, a king of the highlands of Scotland, who flourished in the second or third century, collected by Mr. M'Pherson, and by him translated from the Erse, or Gaelic language, into English.

* Ossian ii. 22.

* Lib. v. sect. 31.

† Lib. xv. c. 9.

VARIETIES.

MACKAREL.—There is not one that exceeds the mackarel in the brilliancy of its colours, or in the elegance of its shape. The fine deep blue upon the back is crossed by many black streaks, and accompanied by a tinge of green, which varies as the fish changes its position. The bright silver colour of the abdomen, and the varying tinge of gold green which runs along the sides, are eminently beautiful in the species; but are only to be seen to perfection when it is first taken out of the water, as death impairs the colours.—*Wood's Zoography.*

SPONGE.—Sponge is allowed now to be a living being; but it long remained a question whether it was a vegetable or an animal one. Its animality is now the belief of the best naturalists. It is described as fixed and torpid; of various forms, composed of net-work fibres, or of masses of small spines interwoven together, and clothed with a gelatinous flesh, full of small mouths on its surface, by which it absorbs and rejects water.—*Sharon Turner.*

BIRDS.—All birds are oviparous. This is their law of reproduction: none bring forth live ones. Their eggs vary in number, size, and colour, but are always covered with a calcareous shell, the produce of their own living functions.—*Ib.*

NUTRITION OF A COW.—A cow consumes on an average 100 lbs. of green food in 24 hours. This, for 185 days of summer, is 18,500 lbs. In winter, 45 lbs. of root a day; or for 180 days, 8,100 lbs. One third of this may be potatoes; the rest, other roots. But she gives, if well fed, 2,000 quarts of milk a-year.—*Allen, on Schools of Industry.*

THE DEATH-WATCH.—The death-watch, or ptinus, is an instance of insect-hearing. It makes a ticking noise, by beating its head with great force against what it stands on. Derham kept two in a box for three weeks, and found that, by imitating their sound, which is done by beating with the point of a pin, or the nail, on a table, the insect would answer him, by repeating its own tick, as often as he pleased.

REFORMATION.

REFORMATION literally means the forming a thing anew, but it is usually considered as signifying a change for the better.

There are no persons whose conduct is so correct as to allow no room for reformation; the best of us are frail and feeble creatures, liable to a thousand errors and mistakes; to the indulgence of many bad habits, and the commission of many evil deeds. And even those actions which in themselves are good and praiseworthy, which, abstractedly considered, are perfect, are sometimes performed from such improper motives, with so ill a grace, or in such a temper of mind, as to detract very greatly from their merit, and sometimes to render them absolutely evils.

Reformation with persons of this description must be preceded by strict self-examination;—as their faults are not flagrant, as they frequently assume the appearance of harmless peculiarities, and even of virtues, they are not much noticed by the world, and are sometimes invisible even to themselves. Even when they are too plain wholly to escape observation, they are not viewed in all their deformity without this assistance; and partiality is apt to form a thousand excuses rather than undergo the pain and trouble of a reformation. But when the good man resolutely determines to review his whole conduct; to examine not only the nature but the motives of his actions; to form no palliations nor excuses for what is wrong, and to shrink back from no pains and inconveniences that may attend the correction of it,—reformation of the most effectual kind usually takes place, as the blessing and help of

God are certainly afforded to those who thus properly seek them.

But the necessity of reformation in those who are openly profligate and decidedly immoral, is too plain to need self-examination for the purpose of conviction. The still small voice of conscience will be heard at intervals, and whisper the propriety of reformation; the counsel and advice of friends, of persons who grieve for the infatuation of the profligate, and earnestly desire to promote their best interests; the embarrassments, the mortifications, the diseases, and the numerous other evils which inevitably await the shameless sinner, call loudly for reformation; and if their voice is not attended to, must make the condemnation of the transgressor more severe.

There is, perhaps, no more powerful persuasive to reformation than the bed of sickness. In the solitude of his own thoughts, under the pressure of pain and privation, with none of the temptations of the world before his eyes, the sinner looks back upon his past life, views with dismay the long array of transgressions which reflection sets before his eyes, recalls to his recollection the denunciations of God's vengeance, which his conscience tells him he so truly deserves, and resolves, too frequently in his own strength, to reform his conduct altogether. If he is thoroughly convinced of his own inability so to do, and prays for assistance from on high, his prayers are heard, and his reformation is lasting and effectual; but if his good resolves arise merely from the fear of death, and of future punishment; if they are the consequence of affliction alone, and do not owe their origin to a complete change of disposition, and distaste for vice,—they will last no longer than the sickness which occasioned them, and no real reformation will take place.

Reformation is exceedingly desirable in many families. A numerous family is a small commonwealth, which requires judgment and discretion in the head of it, to enable him to govern it well; and dutiful submission on the part of its members, to occasion good order and regularity in its economy: but it too frequently happens that the master of a family is ignorant, headstrong, and violent. Jealous of his authority, yet unable to use it aright, his children and dependants, ill instructed and ill governed, become refractory and rebellious; disobedient to commands which are too frequently the offspring of caprice; discontented under restraints not dictated by wisdom and prudence; and ready, on every opportunity, to resist the authority thus improperly exercised. Such a state of things calls loudly for reformation; the governor must be careful that his rules and commands be just and proper, well known, and regularly enforced, and he must likewise ensure their observance by mildly and gently pointing out their reasonableness, the advantages that must accrue from proper attention to them, and the real interest of those under his care in avoiding their infringement. The best of regulations, if enforced with violence, will generally be resisted as far as possible, so averse is the human mind from coercion; while there are few so stubborn as not to shew some docility and readiness of compliance, when the reasonableness of that which is required is gently pointed out, and kindly recommended to their attention.

Reformation in governments is usually a work of great difficulty, although it is of great utility, highly conducive to a nation's welfare, and some time or other to be submitted to, if its rulers would wish to avoid the horrors of a revolution. Even were it possible that legislators and governors were uniformly wise, disinterested,

and patriotic, still it would be necessary that occasional reforms should take place : the laws and institutions which suited the state of the nation when they were framed, become, by a change of circumstances, and by the course of events, wholly unsuited to it after a considerable lapse of time. Customs which were of great utility in the days of yore, may now become highly pernicious. How absurd, then, for men to sound the alarm on the dangers of innovation, and to eulogize the wisdom of our ancestors at the expense of posterity ! Is it to be supposed, that men who flourished in the dark ages of the world, although possessed of great wisdom, when we consider the little light they had, should have legislated with such sagacity, that those of after ages, with all the advantages of vastly increased knowledge and experience, are incapable of making any improvement on their institutions ? The idea is too absurd to be entertained for a moment.

But the true state of the case is, that reformation of imperfections and abuses affects the interests of so many who would find their privileges and gains abridged by it, that strenuous opposition to it is unavoidable ; there are so few disinterested patriots, that prefer the public good

to their own individual interests, that it is a task equal in difficulty to that of cleansing the "Augean Stable," to remove absurdities sanctioned by time, and defended by those who fatten on their gains.

Men entertain such various sentiments on the subject of religion, that reformation is in nothing more needed. Not to mention the absurdities of Paganism and Mahometanism, and the superseded rites and ceremonies of the Jews, there is such a wonderful discrepancy in the opinions of even those that profess Christianity, notwithstanding they have the Scriptures of truth for their guide, that reformation among them is frequently necessary. So great and manifold were the abuses, and so numerous the false doctrines, that had crept into the Church of Rome, from its establishment until the commencement of the sixteenth century, that an alteration which is called, by way of eminence, "THE REFORMATION," took place in many countries, and a separation from that corrupt church was the consequence. The christian doctrine and worship were, by it, restored almost to their primitive purity, but, perhaps, some little reforms might yet be made which would be to their advantage.

Literary Review.

46. *The Moral Class Book, or the Law of Morals. Intended for Schools.* By WILLIAM SULLIVAN. Reprinted from the American Edition. 12mo. Pp. 286. London : Mar-don.

THE intercourse we enjoy with each other is as necessary to our intellectual nature, as air and aliment are for our physical existence. At the same time, however, the knowledge of external nature, and, indeed, of the sciences generally, which that knowledge requires, or includes, is not the great, nor ought it to be the constant, business of the human mind ; for whether we provide for action, or conversation ; or whether we wish to be useful, or to be pleasing ; still the first requisite, the great mover of our thoughts and actions, is the religious and moral knowledge of right and wrong. We know, likewise, that in all parts of human knowledge, whether terminating in science merely speculative, or operating upon life, private or public, there are allowed to be certain fundamental principles, or common axioms, regulating the various pursuits of our career, if moral, if intellectual, or even if physical. At present, our business being with the first, the axioms relative to that important branch of conduct are styled the "laws of morality ;" and to be acquainted with them,—yet not merely acquainted, but intimately conversant with them, is, perhaps, one of the first and most urgent of those manifold duties which our innate propensity to sin compels us, in order to ensure our future welfare, most rigidly to perform.

To assist, therefore, young people in the pursuit of so worthy and so beneficial a course of study, the volume before us has been published ; but the style in which it is written, though the work itself, to youths somewhat advanced in years, cannot fail to be read with pleasure and advantage, renders it better fitted for our transatlantic brethren,

than for us. Still our readers may form a judgment for themselves in the following extract, which, from a casual opening of the book, we transcribe for that purpose :—

Manners and fashions are to be referred entirely to the principle of imitation ; in some instances, it is involuntary, but most frequently, intended, and sometimes with diligent effort. All persons in small, closely connected communities, have manners, opinions, and modes, peculiar to themselves. Every village, school, factory, college, and town, has its own manners, and fashions. Wherever there is a collection of persons, in habitual intercourse, there must be imitation. If the qualities which are respectable in human society, are derived from this principle, of which there can be no doubt, so, also, are the follies and vices of society. If a child had never heard any one swear profanely, it is incredible that he should *invent* profanity. If one had never seen others take spirituous liquors, it is not to be supposed that he would do it. If one had never heard of others wasting time, health, and character, in places of low and infamous resort, it cannot be admitted, that the inclination to do such things, would naturally spring up in an uncontaminated mind. Thus it seems to us, that the sins, follies, and depravities of the world, are rightly chargeable on those who are *imitated*, rather than on those who are imitators. This should be so, because the *experienced* have attained to a certain maturity of age, and have arrived at some knowledge of the evil consequences of their deeds, and ought rather to warn the pure to shun their paths, than invite them to enter upon the like course.

47. *Graphics ; a Manual of Drawing and Writing, for the Use of Schools and Families.* By REMBRANDT TEALE. 12mo. Pp. 86. London : Molineux.

WHAT an incomparable blessing it is to be able, by means of little lines, straight and curved, to form characters, called *letters*, which are capable of expressing every idea that can emanate from the brain of man ! It is an art so admirable, and so easy of acquirement, that it would be shameful in any one of us to be ignorant of its use. But there are as many varieties of writing, as there are hands

capable of holding a pen ; and the more easy it is of perusal, so much the more is it superior to writing generally. Many systems have been promulgated for improving one's hand-writing, and with some individuals they have been effectual in their results. However, it is so mechanical an art, that by attention and practice, with good examples for imitation, much might be effected by the meanest capacity. Mr. Teale has shown us here the intimate connexion that exists between writing and drawing ; and has provided the tyro with many good lessons for his advancement in both of these arts : and in looking through the book we feel ourselves justified in recommending it to the attention both of teachers and scholars generally.

48. *Memoirs of the Life, Character, and Writings of Sir Matthew Hale, Knight, Lord Chief Justice of England.* By J. B. WILLIAMS, Esq. LL.D. F.S.A. Post 8vo. Pp. 408. London : Jackson & Walford.

By the lawyer, indeed readers generally, this entertaining volume cannot fail to be thoroughly appreciated. There is an excellent full-length portrait of the eminent judge facing the title ; and the pages redound with interest and information.

TO CORRESPONDENTS.

We are obliged to "Y" for his flattering note. "V. S." will find himself in error. An "Anonymous Correspondent" will find *Titles and Indexes in Parts XIX. and XXX.*

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PINNOCK'S
GUIDE TO KNOWLEDGE.

No. CLXXXI.]

SATURDAY, JULY 4, 1835.

PRICE
ONE PENNY.



Canning's Monument in Westminster Abbey.

BIOGRAPHY OF CANNING.

"But Canning's gone! I heard the knell
That echo'd o'er his grave,

It sounded like a sad farewell
Of Freedom to the brave."—R. MONTGOMERY.

THE condition in which men are placed, whether low or exalted, is generally attended with great anxiety and much inquietude: particularly among persons who hold public offices; such as are placed in important trusts; those whose vocations are perilous; and those who are goaded into action by the thorns of political ambition. How then must those individuals who undertake the management of the affairs of a great empire experience



many very painful emotions, and endure many most distressing circumstances. To them is attached a most difficult and responsible duty. Their useful and honourable purposes, and their untiring energies, they often see perverted by the bigotry of faction, overwhelmed by the misconception of friends, and too generally defeated by the envious misrepresentation of enemies. To withstand such severe opposition, to overthrow such powerful influences, great moral courage is necessary; and more than this, a greater share of nerve and animal spirits. The subject of our biography this week, the immortal George Canning, was void of these requisites, and therefore sunk under the arduous and dangerous duties that his great and merited worth had devolved on him. Of his early years we learn, that twelve months had scarcely elapsed when he was fatherless; deep embarrassments and unfortunate circumstances bringing his parent to the grave. His mother, however, reared him through his infancy and childhood, and then, unable to provide her aspiring son with an education sufficient to meet his thirst for learning, she was assisted by an only, but wealthy uncle to the child, who readily befriended him, and supplied him with

the means necessary for his stay at Eton College. In this seat of learning, George Canning made rapid and high proficiency, and soon gave specimens of his glowing talent, in a publication entitled the "*Microcosm*," conducted by "chosen sons of old Etonia;" in which many contributions, under the signature of "B," prose and verse, bore convincing evidence that the boy would some day enjoy the fame and great renown that awaited the energies of exalted talent.

His knowledge of the classics was profound, accurate, and very extensive, and had it not been subsequently outshone by qualities of more rare attainment, which fitted him for more elevated labour, and more enlarged utility to his country, and to the world, he would probably have turned his active mind to the work of tuition, and at the head of Eton, or Westminster, or Christ Church, would ultimately have devoted himself to the formation of scholars, of his own finished class. His fame preceded him to Oxford, where

"Oft has Christ Church seen
His eye of glory sparkle round her scene;"

and where he was a first-rate ornament, and a reigning favourite with the tutors and students of that distinguished college. Among his companions, indeed his intimates, in this place, was the celebrated Sheridan, through whose friendship he became acquainted with Burke and Fox. Subsequently, however, his straitened circumstances compelled him to turn his thoughts to the profession of the law, and leaving Oxford, he entered himself a member of Lincoln's Inn. At this period of Canning's life, the greatest popular excitement was triumphing around him, and the dreadful horrors of the French Revolution were beginning to assume a most dangerous aspect. Mr. Jenkinson, the late earl of Liverpool, and one of his early Tory friends, at this crisis introduced Canning to Mr. Pitt, under whose auspices and patronage our hero became a member of the Imperial Parliament.

"When first Mr. Canning was spoken of as approaching the parliamentary arena, with a mind and tongue richly endowed, and a heart beating high for the spread of constitutional security and liberty throughout the world, the report inspired hope of no ordinary elevation. His first speech was on a question too narrow for the full development of his powers; yet was hope outshone by reality, and the young orator took his place in the first and most efficient class. Not only did he equal expectation in genius and knowledge, but far surpassed it in coolness and prudence—qualities seldom found in the earlier efforts of youthful declamation;"

"The glowing Senates mark'd the spirit rise,
And England hail'd it with adoring eyes!"

It was not, however, till the session of 1795 that Mr. Canning gave full force to his capabilities, and then, "No man living," said one of his honest chroniclers, "had the same earnestness of voice, the same carelessly diffused grace of manner, the same simple dignity of style and happiness of expression, the same flowing eloquence; and when necessary, the same overwhelming vehemence of delivery. The characteristics of his style are its rapid harmony, its lucid arrangement, and its freedom from affected phraseology. It was pure, classical, transparent, and musical almost to faultiness." Another witness observed—"As a purely classical orator, Mr. Canning had no rival: all the suns had set to crown, as it

were, his efforts. He was the last of the Romans. His rich imagination, his fine sonorous voice, his easy gesture, and his commanding figure, stamped him as a *homo factus ad unguem in oratory*."

Mr. Canning now became allied by marriage with one of the first ducal families of the kingdom; obtaining at the same time the dear object of his heart, and with her an independent position and opulence. He had now been under-secretary of State nearly four years, and after the lapse of another year retired from office with his patron, Mr. Pitt, to give way to the transient ministry of Mr. Addington. In 1803, however, he returned to office with Mr. Pitt, enjoying the situation of Treasurer of the Navy, till the death of that great minister again compelled him to resign. Scarcely a twelvemonth elapsed ere he was again in power, yet but for a short period, and he subsequently was sent ambassador to Lisbon: a post which brought upon him the bitterest and most unmerited reproaches. After this his mind was changed from the study of Portuguese affairs, to those of India, being appointed President of the Board of Control. Here he displayed the profoundest knowledge of its true interests, and of the proper duties of England towards that vast and splendid colony, which shortly gained him the appointment of the vice-royalty of India. He was prevented leaving this country for that high command, by the sudden and melancholy death of Lord Londonderry, which led to the seals of the Foreign Office being placed in Mr. Canning's hands.

The career of his glory was now approaching its highest earthly altitude; for the incapacity of Lord Liverpool to conduct the important duties of his office, made way for the advancement of Mr. Canning to the head of the ministry. On this proud spot he staked his all,—his unceasing energies, his health, alas! his life! "The 'envy, hatred, and malice,' which this deserved elevation brought upon him, the breach which his opponents instantly created in the cabinet, in the confidence of his not being able to repair it, the difficulties opposed to his persevering efforts to replenish the ministry, the annoyance he met with when parliament reassembled, and when questions of unusual moment awaited legislative decision, the effect of augmented responsibility and labour upon a constitution frequently shaken, and a life frequently threatened, with other circumstances too clearly within public recollection, all conspired to break down the constitution of this great man, and yield him up to death."

The following observations respecting this lamented patriot we extract from the Literary Gazette of that day; to which, in conclusion, we beg to add a poetic eulogy on Mr. Canning—a pleasing memento of his genius and worth:—

"Deeply to deplore the loss of this truly illustrious man, is but to breathe the British air, and participate in the common feeling of human nature. Honoured in our humble sphere with a share of that condescension and regard which endeared Mr. Canning, beyond expression, to the circle of private life, we add a peculiar and individual grief, of the most poignant kind, to the vast sum of national, of universal mourning, which his untimely death has caused. Never, indeed, did we witness so intense a sorrow produced by what might be esteemed a public calamity. It seems as if every one did not merely admire, but love him who has been so suddenly and so unhappily removed for ever from our admiration and love. Those who have not even seen him, the remote, the hitherto

almost uninterested; those who have at no time listened to his splendid eloquence, or watched, with kindling enthusiasm, the high bearing of his soul in the intellectual flash of his dazzling eye; those who have not met him where, the minister and the statesman forgotten, truth in all her simplicity streamed from his candid lips, where ingenuousness, only to be compared with that of virgin innocence, marked every word he uttered, and every look he gave, where all that could distinguish the accomplished gentleman, and scholar, where wit and wisdom, where playful ease and profoundness of thought, where amenity towards all, and friendship for some, imported indescribable charms to that favoured society; those, even those, weep for him with fond and unavailing regret; what must they do, and how bitter must their tears be, who were conversant with all the steps of his pure and patriotic career, and admitted to the inestimable enjoyment of his esteem and confidence? There is no language to speak the weight of affliction which oppresses their hearts. As there is no eulogy which can do justice to the character of him whom they lament, so do we believe and know that there was no sacrifice which they would not cheerfully have made to save him, had it been possible, for the sake of his family, the good of his country, and the welfare of millions of mankind. But the law of our existence is unalterable; the greatest and the best must pass away, leaving only the memory of their genius and virtues to

'Smell sweet and blossom in the dust.'

"About ten minutes before four o'clock on Wednesday morning, the eighth day of August, in the year one thousand eight hundred and twenty-seven, the Right Honourable George Canning, Prime Minister of England, died."

With these lines from the pen of the Venerable the Archdeacon Wrangham, to the memory of George Canning, we conclude this biography.

"Theme of all tongues, and object of all eyes,
In dust, the eloquent, the powerful lies!
And shall he fall, the star of our bright sphere,
Without 'the meed of a melodious tear;'—
His glory like a meteor-blaze expire,
Though all instinct with pure celestial fire?
No; feebly as this grief-worn strain may flow,
Still shall it speak one bosom's pious woe.
Genius of Albion, in what distant dell
Loiter'd thy footsteps when thy Canning fell?
Why flew'st thou not, on angel-wing, to save
Thy champion-son from his untimely grave?
Born to rebuke the vicious and the vain,
These with his light, and those with graver strain;
If folly writhed beneath his playful song,
Or furious faction dyed his scorpion thong—
Alike his hand, his heart to virtue given,
Resistless struck for England and for Heaven.
What though no longer 'mid the frantic tide
His languid grasp thy struggling helm might guide,
When faint with fever'd agony he lay,
And burning anguish drank his life away;
His thoughts were still dear native land with thee:
Still did he pour the prayer thou might'st be free—
He could not live to hail thy swelling state;
But thou, he felt, would'st mourn his early fate.
For Canning lost, Järne, raise thy moan;
Weep, Lusitania, weep thy hero gone;
For him, Columbia, shed thy bitterest tear;
Thy sorrows, Hellas, vent upon his bier;
Yours were his daily nightly toils. When pain
Renounc'd (brief pause!) its empire o'er the brain,
The transient calm of his immortal mind
Was spent on you, his country, and mankind.
For those, by faction, or by malice led,

Whose demon hoof insults the sacred dead—
Be theirs to see for many a year to come
A grateful nation cluster round his tomb,
There duly hang the well-earn'd wreath of fame,
And grace their happiest births by Canning's name."

CHEMISTRY.—No. IX.

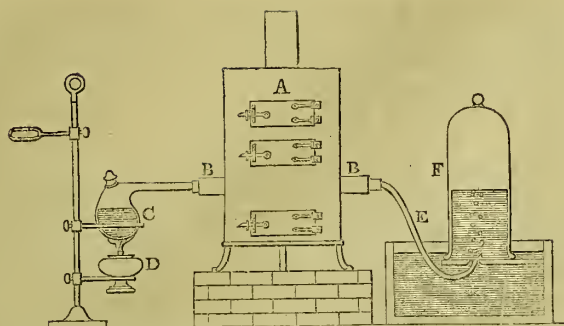
(Continued from p. 228.)

HYDROGEN.

HYDROGEN was discovered by Mr. Cavendish, in the year 1766. In its pure and simple state it is a permanent gas, tasteless, colourless, and inodorous. It is the lightest of all known ponderable substances, 100 cubic inches weighing only 2,153 grains. Its specific gravity, therefore, in comparison with atmospheric air, is 0,0694, or in round numbers it is $\frac{1}{16}$ of the weight of air. It is always procured by the decomposition of water, of which it is a constituent, or of substances containing water. There are many modes by which hydrogen may be obtained; but for experimental purposes it is almost invariably procured from the decomposition of water, by the agency of an oxidable metal. There are some metals which decompose water at ordinary temperatures by attracting its oxygen, and liberating the hydrogen. Of these, the most convenient and economical are iron and zinc, which must be used in the divided state, as filings or turnings; or it must be granulated by pouring the melted metal gradually into cold water, by which it will be divided into small fragments. It is necessary, in making hydrogen by this process, to add an acid to the water, for the metal becomes covered with a film of oxide by immersion, and then the decomposition ceases—the acid dissolves this oxide, as soon as it is formed, and the metal then presents a fresh surface for the attraction of the oxygen of the water, and for the consequent liberation of another equivalent of the hydrogen. This action continues until the metal is dissolved, or the acid saturated.* The gas may be received in vessels filled with, and inverted over, cold water, as it is but slightly absorbed. Another, and more elegant mode of procuring hydrogen from water, is to pass the vapour of it over ignited iron. This process is, however, less convenient than the former. A tube of iron or porcelain containing a given weight of clean iron turnings is placed in a furnace, containing an aperture on each side for the insertion of a tube. A retort containing a known quantity of pure distilled water is connected by means of a good cork or fire lute, with one extremity of the tube, and a flexible pipe is by similar means adapted to the other. The tube is then heated to bright redness; and when in this state, a spirit lamp is applied to the retort, and as the water boils, the vapour passes through the tube and over the ignited iron it contains. The vapour is readily decomposed; its oxygen combining with the iron, and the hydrogen escaping through the flexible pipe into the vessel appointed for its reception. If after the operation the iron be carefully reweighed, it will be found heavier than before; and if the increase in its weight be added to the weight of the hydrogen produced, the same will be precisely equal to the weight of the water that has been vaporized.

The following cut represents the apparatus employed in this experiment,

* One part of sulphuric acid, diluted with seven of water, is generally employed in making hydrogen.



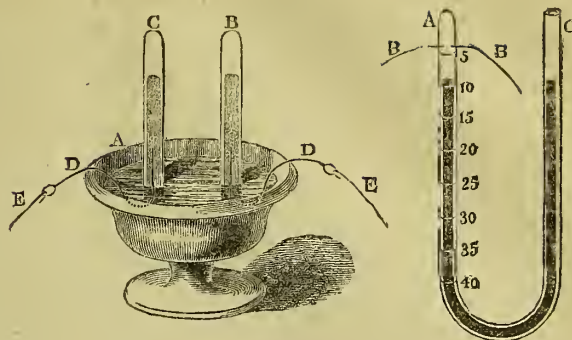
A, the furnace; *B B*, the tube containing the iron; *C*, the retort with water in it; *D*, spirit lamp to boil the water; *E*, the flexible tube, through which the hydrogen passes; *F*, the receiver for the gas in a pneumatic trough.

Potassium, or sodium, decomposes water instantly, and with violent chemical action. If potassium be thrown in a vessel of water, a purple flame is instantly produced on its surface. The metal combining with the oxygen of the water, is converted into the alkali potash, and the hydrogen escaping combines with a minute portion of the potassium, and becomes *potassuretted* hydrogen, which takes fire by the intensity of the chemical action, and burns with purple flame. If a piece of the metal be quickly and carefully wrapped in paper, and dexterously passed into a bottle filled with, and inverted over, water, the hydrogen may be collected, as it does not take fire when liberated, if atmospheric air be not present.

It was not until long after the discovery of hydrogen, that it was suspected to be a component of water. The phenomenon of the production of water by the combustion of a jet of hydrogen had been observed; and it was conjectured that the water deposited, was the vapour of the gas condensed. Mr. Watt appears first to have conjectured that the gas must be a component of water, and the fact was subsequently proved in a variety of decisive experiments by Cavendish, and other philosophers. The most elegant mode of analytically and synthetically proving the composition of water, is by the agency of electricity. If the two poles of a voltaic battery are connected with two platinum wires, inserted in tubes, filled with, and inverted over, distilled water, bubbles of hydrogen gas will issue from the wire in connexion with the *negative* pole of the battery, and bubbles of oxygen from the other, the quantity of hydrogen will be double that of the oxygen. Water is therefore composed of two volumes of hydrogen combined with one volume of oxygen. If the gases thus liberated are transferred to an eudiometer, and an electric spark be passed through them, they combine with explosion, and form water. The most convenient eudiometer for this purpose, is that of Dr. Ure. It is a strong glass tube, hermetically sealed at one end, and curved in the form of a syphon. The sealed leg is graduated into equal parts, and is provided with two platinum wires for the transmission of the electric spark. The following engravings represent the apparatus for the voltaic decomposition of water, and the eudiometer for its recomposition.

When the gases are transferred to the sealed leg, a portion of mercury must be expelled from the open end, so that the mercury shall stand at the same altitude in both legs. The portion of air between the surface of the mercury and the thumb acts as a recoil spring when the explosion is made, and prevents accidents.

The formation of water by the combustion of hydrogen may be satisfactorily shown by the following simple ex-



A, the cup containing the water; *C B*, the tubes inverted over the wires to receive the gases; *D D*, the platinum wires communicating with the poles of a voltaic battery, by means of the copper wires, *E E*.

A, the sealed leg of the eudiometer graduated, which contains the gases passed into it when filled with mercury; *B B*, the platinum wires, through which the electric spark is passed; *C*, the open end of the eudiometer, which must be closed with the thumb when the spark is passed.

periment: put some fragments of zinc, or filings of iron, in a bottle, and add to it dilute sulphuric acid. Insert immediately a cork fitting perfectly air tight, and provided with a tube, with small bore passing through the centre. The gas generated in the bottle will pass through the tube, and may be ignited, when it will burn with a flame producing but little light. The *gas must not be ignited* until a sufficient quantity has been generated to expel the air in the bottle; for if it be mixed with a due proportion of air, it explodes with great violence. Invert over the jet of flame a clean dry glass; in a few seconds it will be covered with dew; and if held for a sufficient time, water will trickle down the sides.

If glass tubes of different lengths and diameters be placed over the flame, musical notes varying with the size and length of the tube will be produced. Florence flasks and small bottles produce the same effect.

This article will be concluded in our next.

AMPHICTYONS.—THE AMPHICTYONIC COUNCIL.

In the early ages of Greece, when its inhabitants were rude savages, and its territories divided among a host of petty princes; when religion scarcely existed, or, at most, in so barbarous a form, that it could not be distinguished from the gross indulgence of the most depraved passions; when the arts of social life were yet hidden amid the mysteries of nature,—civilization and union were totally wanting among the Greeks, and they were ever liable, both as communities and individuals, to the inroads and devastations of their neighbours, and to the permanent dominion of might over right.

The northern districts of Thessaly being peculiarly exposed to the incursions of barbarians, the petty princes of that province, perceiving that their weakness consisted in disunion, and that confederacy alone could preserve their territories from danger and ensure them peace, resolved to enter into a common alliance for mutual defence. They therefore assembled at Thermopylæ, then governed by Amphictyon, son of Deucalion, and formed the constitution of the *Amphictyonic Council*; a confederacy which afterwards became so illustrious in the records of Grecian history.

This august assembly was composed of deputies from the different states of Greece, forming a representative

body, resembling, in some degree, the modern Diet of the German empire, or the late States-General of the United Provinces.* It is supposed to have been denominated the Amphictyonic Council, and its members Amphictyones, in honour of Amphictyon; but some authors consider the term Amphictyones to be compounded of the two Greek words *amphi*, *about*, and *cticin*, *to dwell*, because the inhabitants round about met together in council.

The assembly originally consisted of only twelve members, deputed by the Ionian, Dorian, Perrhæbian, Bæotian, Magnesians, Achæan, Phthian, Melian, Dolopians, Ænianian, Delphian, and Phocian,† cities and states. Their primary object was the union of the various Grecian communities in a strict bond of amity, whereby they might be mutually vigilant for the tranquillity and happiness of their common country. The advantages which the confederated states derived from this wise and prudent measure were quickly discerned by their neighbours. Other cities sought and obtained admittance into the alliance; so that in the time of Antoninus Pius,‡ the number of Amphictyons had increased to thirty. In the time of Philip of Macedon, the Phocians were excluded the alliance, for having plundered the temple of Apollo, § at Delphi, || and the Macedonians

were admitted in their stead; but sixty years after, when Greece was invaded by Brennus¶ and his Gauls, the Phocians behaved so valiantly, that they were reinstated in all their former privileges.

In the reign of Augustus, the city of Nicopolis ** was

observed; more especially in Egypt, Greece, and Italy, where his temples and statues abounded. He is represented as a tall beardless young man, with a bow in his hand, and sometimes a lyre, and crowned with laurel; which tree was sacred to him. The wolf and the hawk were dedicated to Apollo, as symbols of his piercing eyes; the crow and the raven, from their supposed instinctive faculty of indicating future events; the cock, on account of his crowing at the rising and setting of the sun; and the grasshopper and the swan, for their unusual vocal powers.

|| A small town of Phocis, in Greece, situate on the west side of Mount Parnassus, and famous for its splendid temple of Apollo. The town was undefended by walls, being rendered secure by the precipitous sides of the mountain. The Delphian oracle of Apollo was celebrated throughout the pagan world. Its origin is thus fabulously accounted for by heathen writers.—Some goats, while feeding on Mount Parnassus, came to a place where there was a deep and long perforation in the ground. From this aperture issued a vapour, which seemed to inspire the goats, causing them to play and frisk about in an extraordinary manner. This induced the goatherd to examine the mystery; and he had no sooner approached, than he also became enthusiastically affected, and uttered wild and extravagant expressions, which the common people took for prophecies. These circumstances led to repeated experiments by the surrounding inhabitants, who at length so revered the spot, that a temple was erected in honour of Apollo, and Delphi founded; a city which afterwards became one of the most illustrious in Greece. The oracle of the god, in after ages, controlled the affairs of the whole country; and the famous Amphictyonic council took into their own hands the guardianship of the temple and its treasures, and generally held their important assemblies in the town.

The temple originally constructed was merely a kind of hut formed of laurel boughs; but an edifice of stone was soon after erected, which stood about 700 years, until it was destroyed by fire in the time of Cyrus, 548 B.C. It was re-edified in a far more splendid manner by the Amphictyons, and the citizens of Delphi, and soon became the richest repository in the world; it being customary for those who came to consult the oracle, to make superb presents to Apollo. Its amazing opulence rendered it often the object of plunder; the Phocians, when they despoiled it, carried away 10,000 talents, a sum equal to 1,937,500 pounds sterling.

The Delphian oracles were delivered by a priestess called Pythia; who, after washing her body, and especially her hair, in the Castalian fount,* placed herself on a lofty tripod, decked with laurel, which stood over the sacred aperture. She wore a crown of laurel, and sometimes chewed the leaves of a sacred tree which grew near; the influence whereof, assisted by that of the mysterious vapour, threw her into a phrenzy; during which she uttered her pretended prophetic inspirations. The incoherent and detached expressions which the Pythia uttered in this distracted state, were collected together by the Delphians, reduced into order, animated with sense, and adorned with harmony. The oracles were, however, always famed for their studied and dexterous ambiguity. This famous superstition retained its renown for many ages, until the mal-practices of its conductors, who were convicted of bribery and gross corruption, exposed it to deserved contempt and neglect. In the time of Strabo, the temple was reduced to extreme poverty.

The site of the ancient Delphi is now partly occupied by a miserable Turkish village, called Delphos, consisting only of a few poor cottages, inhabited by Albanians. Many remains of antiquity attest the former extent and magnificence of the sacred city.

¶ There were two celebrated generals of the Gauls, named Brennus, one of whom successfully invaded Rome, B.C. 365; the other, (the one above mentioned) made an irruption into Greece, with 150,000 men, and 15,000 horse; and endeavoured to plunder the temple of Apollo, at Delphi. Being, however, defeated, and his troops cut in pieces by the Delphians, he slew himself in a fit of intoxication, B.C. 287.

** A town of Epirus, now part of Albania, in Greece, situate on the northern coast of the Sinus Ambracius, (the Ambracian Gulph,) a bay of the Ionian Sea, now called the Gulf of L'Arta. It was built by Augustus, after the battle of Actium, and is now called Prevesa Vecchia. There were also several other towns named Nicopolis: one in Lower Egypt; one in America, built by Pompey the Great, in memory of a

* The Fons Castalius, or Castalia, (Castalian Fount,) was a fountain of Parnassus, anciently sacred to the Muses. Its waters were cool and excellent, and are said to have had the power of inspiring those that drank of them with true poetic fire. From this fountain the Muses received the appellation of Castalides.

* See Pinnock's Modern Geography.

† See Pinnock's Classical Geography.

‡ Titus Aurelius Fulvius Brionius Antoninus, surnamed Pius, was adopted by Adrian, emperor of Rome, and succeeded him on the imperial throne, A.D. 138. He was born, A.D. 86, at Lanuvium, a town of Latium, in Italy, about six miles from Rome, on the Appian Road, of a family originally from Nîmes, in Languedoc. The character of this prince was, in all respects, one of the noblest that can be imagined. He was remarkable for all the virtues that can form a perfect statesman, philosopher, and king; wherefore, the title of Pius was given him by the senate. He rebuilt those cities which the wars of former reigns had destroyed; he was fond of peace, caring more to preserve than to extend the bounds of his empire; and in war he preferred justice and moderation to all the advantages of victory, his constant maxim being that of Scipio.—“I prefer the preservation of one citizen to the death of a thousand enemies.” He was extremely generous, relieving the distressed, in times of inundation and famine, and supplying their wants from his own patrimony; yet he managed the public revenues with the greatest frugality. He protected the Christians, and in every respect diligently studied the welfare and happiness of his people; behaving towards them with affability and humanity, and listening patiently to every complaint which was brought before him. Thus his whole life was one of universal benevolence; and he secured to himself the unanimous esteem and reverence of his contemporaries, and the admiration of posterity. This great and good monarch, truly the father of his people, died in the 75th year of his age, and the 23d of his reign; A.D. 161.

§ The pagan deity, Apollo, was worshipped both by the Greeks and Romans. According to heathen mythology, he was the son of Jupiter and Latona, and sister of Diana; and was born in the isle of Delos. He presided over poetry, music, the fine arts, eloquence, and medicine; and was worshipped as the Sun. Apollo had various names; being called the Healer, from his enlivening warmth and cheering influence; Pæon, from the pestilential heats; Nomios, or the shepherd, from his fertilizing the earth, and thence sustaining the animal creation; Delius, from his rendering all things visible; Pythias, from his victory over the serpent Python; Phœbus, Lycias, and Phaneta, from his purity and splendour. He received from Jupiter, the power of knowing futurity, and was the only one of the gods whose oracles were in general repute throughout the world. It is related, that immediately after his birth, he destroyed the terrible serpent Python, whom Juno, from jealousy of Latona, had sent to destroy her; hence he derived the name of Pythias, and his oracular priestess, that of Pythia. The city of Delphos, where his oracles were delivered, was also often called Pytho. An historical interpretation of this fable would render it probable that by the serpent Python, is meant a robber, who haunted the neighbourhood of Delphos, and annoyed those who came thither to sacrifice; and that he was put to death, either by a prince named Apollo, or by one of the priests of that god. This legend, however, gave rise to the celebrated Pythian games, so often mentioned in Grecian history.

Apollo was considered by the ancients to be the deity who inflicted plagues; his power and worship were generally acknowledged and

granted a voice in the Amphictyonic council; to make room for which, the Magnesians, Melians, Phithians, and Ænians, were ordered to be reckoned jointly with the Thessalians, and to have only one common representative, although they had before separate deputies.

Although the Amphictyonic council was originally instituted at Thermopylæ, yet it was most generally held at Delphi, and only occasionally at the former place. Its members were of two kinds, consequently each state deputed two representatives; the one of whom was called Hieromnemon, and the other Pylagoras. It was the business of the former to attend more immediately to the transactions concerning sacrifices, and the ceremonies of religion; that of the latter, to the hearing and deciding of causes and differences between private persons. The hieromnemon was elected by lot; the pylagoras by a majority of voices; both were equally entitled to deliberate and vote in all matters affecting the common interests of Greece.

The Amphictyons decided all public differences and disputes between any of the cities of Greece; they were also the protectors of the Delphic oracle, the guardians of its treasures, and the arbitrators of all misunderstandings arising between the Delphians and those who came to consult the oracle; and their determinations were received and obeyed with the greatest veneration by all parties concerned.

The members of the council, previous to their admission, took a solemn oath never to divest any city of their right of deputation; never to avert its running waters; to carry on war against all who should make any such attempts; and more especially to avenge any attempt which might ever be made to rob or despoil the Delphian Temple of any part of its treasures or ornaments; to which service they devoted their hands, feet, tongue, and whole powers. This solemn oath was confirmed by dreadful imprecations against any who should infringe it; such as, "May they meet the vengeance of Apollo, of Diana,* and of Mi-

victory which he had there obtained over the forces of Mithridates, and now called Divriki; one in Thrace, built on the banks of the Nestus,* by Trajan, to commemorate a victory which he obtained there over the barbarians; one near Jerusalem, founded by the emperor Vespasian; one in Dacia, also built by Trajan; another in Mæsia; and another near the bay of Issus, built by Alexander.

* Diana, the goddess of hunting, was the daughter of Jupiter and Latona, and born at the same birth with Apollo. Her name is derived from Dia, (*i.e.* Dea, goddess,) and Iana, (*i.e.* Luna, the moon;) the words Dia-Iana being abbreviated into Diana. This goddess devoted herself to perpetual celibacy; presided over the travails of women; and was the patroness of chastity. In order to shun the society of men, she dedicated herself to hunting; in which amusement she was always attended by a select company of virgins, who had, like herself, abjured marriage. Diana was considered to be the same as the moon, (Luna), and Proserpine or Hecate; being called Luna in heaven, Diana on earth, and Hecate or Proserpine in hell: hence she received the appellation Triformis, (three formed,) and was often represented with three heads. She was also supposed to be the Isis of the Egyptians, as Apollo was their Osiris, and their worship to have been introduced at the same time into Greece. Diana was called Lucina, Ilythia, or Juno Pronuba, when invoked by women in child-bed, and Trivia when worshipped in the crossways, where her statues were usually placed; besides which, she had many distinctive appellations, principally derived from her various functions, and the places where she was worshipped. Such were Agrotera, Orthia, Taurica, Delia, Cynthia, Aricia, &c. The inhabitants of Taurica, now called the Crimea, were peculiarly attached to this deity, and cruelly sacrificed to

nerva;† may their soil produce no fruit, their wives bring forth monsters, their adversary prevail in every law-suit; may they be conquered in war, their houses be demolished, and themselves and their children delivered to the ravages of the sword!"

The Amphictyons assembled twice in each year; viz. in spring and autumn. The vernal meeting was termed *earinepylaia*, and the autumnal, *metoporine*. Previously to transacting any business they sacrificed to Apollo an ox, which they had first cut into small pieces, in token of their unanimity. On extraordinary occasions, the council met at any period of the year; and even, if especially requisite, continued to sit during the whole year.

Philip of Macedon usurped the presidency of the assembly, and the right of first consulting the oracle, which was called *promanteia*. The meetings and deliberations of the Amphictyonic council were not suppressed by the Romans, when that people became masters of Greece.

VARIETIES.

PORPOISE.—At night each porpoise is surrounded by a sort of halo or glow of bright bluish sparks. The form of its head and body can then be distinctly seen; and the slightest movement of its tail discovered fully, better than in daylight. The lustre of this mysterious illumination is at times so great, that one may read off the second hand of a watch by its help alone.—*Capt. B. Hall.*

COAL.—Coal has hitherto been found most extensively in the British Islands: the next in importance is near Liege. It is also in Misnia, Hungary, Silesia, Bohemia, Upper Styria, and France: It has been discovered in America in various parts, and also in China, the Birman Empire, Great Tartary, and New South Wales.

her all strangers who were shipwrecked on their coast. In Aricia, a city of Italy, her temple was always served by a priest who had been a fugitive, and had murdered his predecessor, and who continually carried a dagger about him, to defend himself from any attempts which might be made upon his life, by one who desired to become his successor.

Diana is generally represented as tall, and somewhat masculine in appearance; her legs being bare, well shaped, and strong; and on her feet buskins, such as were worn by huntresses among the ancients; carrying a quiver, and attended by dogs; and sometimes in a chariot, drawn by two stags. At other times, she is painted with wings, holding or leading a lion with one hand, and a panther with the other, and seated in a chariot, drawn by two heifers, or two horses of different colours. Goats were offered to her by the Athenians; a white kid by others; and sometimes a boar pig, or an ox. The poppy and the dittany were sacred to this goddess.

† In pagan mythology, Minerva, or Pallas, was the goddess of wisdom, the sciences, and the liberal arts. She is fabled to have sprung completely arrayed, from the brain of Jupiter; which is a very natural allegory; referring to the issuing of wisdom from the brain, the seat of thought and intelligence. Minerva devoted herself to perpetual celibacy, and steadfastly resisted the importunities of the gods. She is usually represented with a composed and agreeable countenance, and completely armed; having a helmet on her head, surmounted by a large plume, a spear in her right hand, and a shield, called the *Ægis*, in the left. On her *Ægis* was fixed the head of the Gorgon, Medusa, which turned into stone all who looked upon it. As goddess of the liberal arts, Minerva is portrayed as habited in a variegated veil, which the ancients called *peplum*. She was universally worshipped, especially at Athens, of which city she was the patroness, and to which she gave her name, Athena, which signifies knowledge. She had also the various appellations of Pallas; Parthenos, from her perpetual celibacy; Tritonia, because worshipped near the lake Tritonis; Glaucois, from the blueness of her eyes; Agoræa, because she presided over markets; Hippiæa, from her having first taught men to manage horses; Strateia and Area, on account of her martial disposition; Coryphagènes, because she sprang from Jupiter's brain; Sais, from her worship at Sais, in Egypt; &c. &c. A white heifer, which had never been yoked, was the usual offering to Minerva; and the owl, the cock, and the basilisk, were sacred to her.

* The Nestus, or Nessus, now called Nesto, is a small river of Thrace, rising in Mount Rhodope, and falling into the Ægean Sea above the island of Pharos. (See *Pinnock's Class. Geog.*) It was for some time the boundary of Macedonia on the east, in the more extensive power of that kingdom.

NEW HOLLAND.—The natives of New Holland are estimated at three millions, yet agriculture is unknown among them. Their food is frequently scanty and loathsome, consisting sometimes of grubs and reptiles taken in the hollow or decayed trees of the forest. Here man will not help himself. Many uncivilized people will not cultivate the earth. Their deficiencies of subsistence are therefore their own wilful fault. They prefer any privation to personal labour.—*Ellis Polyn.*

RESIDENCE OF EUROPEANS IN INDIA.—All natural-born British subjects are now permitted to reside without license in any part of the territories which were under the government of the Company on the 1st day of January 1800, in any part of the countries ceded by the Nabob of the Carnatic, of the province of Cuttack, and of the settlements of Singapore and Malacca. The only conditions required are, that the party shall proceed by sea, and shall on his arrival give notice of his name, place of destination, and objects of pursuit. A license is still necessary in the territories not specially excepted by the act. A British subject may hold lands in any place where he is authorized to reside.—*Thornton's India.*

ENGLAND AND INDIA.—England is saturated with the capital of which India stands in need. England abounds with the scientific information and the practical ingenuity in which India is remarkably deficient. England, too, possesses, in an eminent degree, that spirit of enterprize, the want of which is one of the most striking characteristics of the larger portion of the inhabitants of the East.—*Ibid.*

THE ORIGIN OF IDOLATRY.

AFTER the confusion of tongues which God inflicted upon the presumptuous builders of Babel, many of the dispersed tribes soon began to forget the true God. The elements, various parts of visible nature, and even

powerful or ingenious men themselves, were deified by the superstition of one or other of these tribes, who paid to them the worship due only to Jehovah. As the dead were no longer visible, and as personified qualities and actions were equally invisible, men next proceeded to fashion from wood and stone divers images, which they put in the place of these. And whenever they needed assistance, or felt gratitude for that which they had already received, they knelt to these images, and prayed to or praised them. Cunning men encouraged this idle and impious propensity, and received in the character of priests those rich offerings which ignorant human beings laid upon the altars to propitiate senseless logs, which could neither serve nor injure them. This false worship is what is called idolatry, or image worship.

REFLECTION.—It may be laid down as a position which will seldom deceive, that when a man cannot bear his own company, there is something wrong. He must fly from himself, either because he finds a tediousness in the equipoise of an empty mind, which having no tendency to one motion more than another, but as it is impelled by some external power, must always have recourse to foreign objects, or he must be afraid of the intrusion of some unpleasant ideas, and perhaps is struggling to escape from the remembrance of a loss, the fear of a calamity, or some other thought of greater horror. There is certainly no greater happiness than to be able to look back on a life usefully and virtuously employed; to trace our own progress in existence, by such tokens as excite neither shame nor sorrow.

Literary Review.

60. *Treatise on Mineral and Medicinal Waters, their Qualities and Effects.* By W. CAIFFE, ESQ. 12mo. Pp. 86. Liverpool: Smith.

THOUGH most of the diseases to which mankind are subject, are the consequence of human depravity, and not of man's natural constitution, yet the benevolence of God has not failed to provide us with natural medicines; for his goodness, indeed, we owe all medicines; for however considerable and conspicuous a part human skill may play in extracting medicinal preparations from animal, vegetable, and mineral substances; it is obvious that the valuable properties of those preparations are the gift not of human skill, but of Divine benevolence. But mineral waters, possessing medicinal virtues, are more peculiarly and directly the gift of our Creator; and he who participates the benefit of them without finding his mind excited to gratitude to the great Donor of them, is exceedingly to be pitied as well as censured.

Impregnated with certain mineral particles, these waters have various kinds of virtues, according to the various kind and degree of their impregnation. Springs or wells of this description exist in nearly all countries. In England we have several of them; and thousands have been restored to health and strength, and preserved in life by their means, whose infirmities and maladies had bid defiance to all the skill and

perseverance of human medicine. By a very careful and elaborate analysis of these natural medicaments, the faculty have attained to the power of very closely imitating them. But, so superior is nature to art, it has been uniformly observed that though the colour, taste, and odour, of the natural waters be ever so exactly imitated in the artificial ones, the latter never produce so much good effect upon the drinkers as the former do. The work before us professes to explain, by chemical analysis, the qualities and effects of the various medicinal waters of this country; but we regret Mr. Caiffe had not adopted that style of language which would have rendered his treatise useful to the general reader, whereas it is overwhelmed with scientific terms, and scientific explanations, which cannot be understood but by the chemical student.

61. *Sunday Schools in England.* By J. A. 8vo. Pp. 64. London: Owen.

NEXT after the services, due individually and socially, to the Almighty, surely there can be no sabbath duty more worthy of the created, and the Creator, than those which open the mind to a knowledge of His works, and of the duties which He has prescribed. Such employment of the Sabbath is morally and philosophically consistent with the nature of man, and of society. It is well

known, that many persons, of both sexes, who have been blessed with the advantages of education, have voluntarily given their services, and their pecuniary contributions, to promote and effect this truly charitable, benevolent, and moral purpose. And it is most sincerely to be hoped that such praiseworthy examples will have their just influence, and be every where followed. To the ready and the willing among us, who advocate such pursuits, we would recommend the perusal of the above pamphlet, which displays, at some length, the usefulness of Sunday schools, at the same time that it shows in what they are deficient, and in what they often are redundant.

62. *Grammar of the Italian Language.* By GUAZZARONI. Fourth Edition. London: Gardiner and Son.

THIS is a very useful grammar, and deserves a continuation of the patronage it has hitherto received.

NOTICE TO CORRESPONDENTS.
We thank "O. H." for his information.
We cannot comply with the request of "P. S."

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PINNOCK'S GUIDE TO KNOWLEDGE.

No. CLXXXII.]

SATURDAY, JULY 11, 1835.

PRICE
ONE PENNY.



THE LLAMA, (*Auchenia Glama.*)

(Continued from p. 227.)

THE domestic animals, in that susceptibility of improvement which they severally offer to the culture of man, give to the thinking mind a beautiful commentary on the ancient command, "*Replenish the earth.*" Under the magic influence of this principle, the wild horse of the tropic desert has been reclaimed, and his very flesh and figure moulded to suit a multitude of purposes, either of luxury or labour. The crisp and wiry-coated sheep of oriental plains has changed his garb, and is now as valuable for his downy fleece, as the cotton plant for its textile fibres. In the homely cat, the ferocity of the tiger has been soothed into habitual quietude; and the savage cattle of Germanic woods have so far yielded to the same transforming hand, that their original forms and passions have become totally changed, and, according to the quaint lines of Wilkinson, are now

"Wide in their hips, calm in their eyes,
Fine in their shoulders, thin in their thighs,
Light in the neck, small in the tail,
Wide in the breast, and good at the pail,
Fine in the bone, and silky of skin,
A grazier's without, and a butcher's within."

A similar and equally remarkable change has been made in the physical and mental constitution of the llama, by a long course of domestication. The form, colour, and temperament of the animal has been so extensively varied from the uniform standard exhibited in its wild state, that the task of discriminating them has become one of no ordinary difficulty. Authors, and travellers unskilled in these varieties, have described them as distinct animals, and have filled their books with the most conflicting statements, as well as with a number of local, uncouth, and inexpressive names. They speak, in general terms, of the llama, the guanaco, the paco, the alpaco, and the vicugna, and inflict on the reader the still greater misery of guessing at long or short haired, black, white, or brown, individuals. Scientific naturalists have, till recently, done very little towards a dissipation of these mists, and in many cases have even rendered the darkness more profound, by saddling the pedantry of names upon creatures whose very existence was questionable. "Until the last half century," says Mr. Bennett, "the great majority of naturalists, including Ray, Klein, Brisson, and Linnæus, concurred

in reducing them to two species, the llama or guanaco, commonly used as a beast of burthen, and the paco or vicugna, cultivated for its flesh and its wool. Of this opinion was Buffon, when he wrote the history of the llama and the paco; but the observation of living specimens of the llama and the vicugna, and the communications of the Abbé Béliardy on the subject, induced him afterwards to admit the latter animal as a third species, distinct from both the preceding. In this he was followed by Molina, who, in his Natural History of Chili, separated also the guanaco, and added a fifth species, the Hueque or Chilian sheep of the older authors. Gmelin, Shaw, and almost every subsequent compiler, have adopted these five species without examination, giving to them such synonyms as they could pick up, almost indiscriminately, from the writers on the Natural History of America, and thus creating a mass of confusion which it would be both vain and useless to attempt to unravel."

It seems to be the general opinion that this subdivision has been carried too far. M. F. Cuvier limits the number of species to three, the brown or wild llama, the white domesticated llama or paco, and the vicugna, a drawing of which stands at the head of this article. In the rejection of Molina's species, the guanaco and the Hueque, he appears to be justified by the imperfect accounts furnished by that writer, and by his confessed want of materials. Mr. Bennett would go still further, and with us agree with Baron Cuvier, in regarding the paco as a mere variety of

the llama, with the wool more amply developed; and in considering the vicugna as the only animal of the group that deserves to be specifically distinguished from the latter. His reasons for adopting this opinion are founded partly on the observation of numerous specimens, varying in colour through different shades of white, brown, and black, or a mixture of two of these shades, and having the woolly hairs developed in various degrees; and partly to our knowledge of the great extent of modification to which the domesticated races of ruminants are uniformly subject.

At the period of the arrival of the Spaniards in Peru, the llamas were universally employed as beasts of burthen, and were also killed in vast quantities for their flesh and fleece. Gregory de Bolivar estimates that, in his time, four millions were annually killed to be eaten; and no less than three hundred thousand were employed in the transport of the produce of the mines of Potosi alone. In the performance of these journeys, "they want," says Father Feuillée, "neither bit nor bridle nor saddle; there is no need of oats to feed them; it is only necessary to unload them in the evening at the place where they are to rest for the night; they go abroad into the country to seek their own food; and in the morning they return to the same place, their baggage is replaced, and they continue their route." They carry a load not exceeding a hundred and fifty pounds, at the rate of twelve or fifteen miles a day.

The flesh of the llama is considered savoury when young; and their wool is in great request, especially among the native Indians, who make use of it in the manufacture of stuffs, ropes, bags, and hats. The skin was employed of old by the Peruvians to make soles for shoes; but as they were ignorant of the arts of tanning and currying, the shoes thus made were incapable of keeping out the wet. The Spaniards, however, turn it to better account, and convert it into very excellent leather, which is especially valued for the making of harness.

THE VICUGNA.

(*Auchenia Vicunia*.)

FROM the remarks which we just made upon the llama family, the reader will clearly understand that all those individuals which have been hitherto regarded as distinct species are merely varieties produced by domestication, and that the only creature of the tribe which exhibits any essential difference, is that which we have figured, and upon which we are now about to offer a few closing observations.

The vicugna is a sort of miniature representative of its greater relative the llama. It is altogether of a more delicate and agile structure, and possesses a peculiarly feminine disposition. It is, nevertheless, a much more hardy animal than the llama, or any of its reclaimed brethren, and inhabits a higher range of mountains, on the very borders of perpetual snow, where of course the cold is most intense. To meet the wants which this additional severity of temperature originates, the Creator has thickly clothed it with wool of the most exquisite fineness and flexibility. Thus apparelled, and endowed with great muscular fleetness, it lives a merry life, bounding hither and thither, in the regions of silence and desolation, unhurt by the cold, and unwearied by the rugged hills which frown away all animals but itself.

The wool has become of great commercial advantage to the inhabitants of Chili and Peru, and is manufactured in a variety of expensive forms, but chiefly for rich cloaks and shawls. The animals are said to abound in such multitudes, that although eighty thousand are annually destroyed for the sake of the wool, the species does not appear to diminish. A clever zoologist, writing upon this subject, says, "Instead, however, of this barbarous and narrow-sighted way of proceeding, it would, we imagine, be much better, as it is no doubt practicable, to reclaim the creature, and add it to the number of those which man feels it his interest and duty to protect."

ATMOSPHERE.

(Continued from p. 214.)

To account for the frequent changes of temperature in the atmosphere, has hitherto eluded the attempts of philosophers. That the beams of the sun have great influence in this respect, experience proves; but until it is clearly ascertained of what these beams consist, and how they elicit heat from the atmosphere, these changes cannot be satisfactorily explained: that the beams of the sun are not of themselves the matter of heat, or caloric, in a state of activity, is evident from the circumstance that, though they fall with unclouded splendour on the tops of lofty

mountains, they do not produce heat sufficient to melt the snows that rest for ever on those chilly summits, whilst on the plains below they scorch every product of the earth with their intense fervency.

From this circumstance we may fairly conclude that heat is, in a latent state, contained in the atmosphere, and that it is disengaged and put into a state of activity by the rays of the sun; that, therefore, the changes of temperature which, in some countries, occur so frequently, arise chiefly from changes in the atmosphere, occasioned by a variety of causes, as exhalations from the earth and waters, &c. &c.

Philosophers have made a variety of experiments to determine the height to which the atmosphere extends above the earth's surface, and hazarded numerous conjectures on the subject; as it is well known that it is elastic, and decreases in density by its expansive force the farther it recedes from the earth, it is almost impossible to fix bounds to its extent, or to suppose that it does not exist in an infinitely rarified state throughout the whole universe.

But although the experiments made to ascertain the height of the air are insufficient for the purpose, they have led to beneficial results; by means of them the densities at different heights have been discovered with a degree of accuracy sufficient for ordinary purposes, so that, by the difference of the height of the quicksilver in the barometer at the foot and at the summit of a lofty mountain, the height of the mountain itself can be ascertained; by this method aeronauts calculate the height to which their balloon ascends. From a great number of these experiments the following table of densities has been constructed:—

At 3½ miles height, it is 2 times rarer than at the surface of the earth.		
7	ditto	4
14	ditto	16
21	ditto	64
28	ditto	256
35	ditto	1024
42	ditto	4096
49	ditto	16384
56	ditto	65536

and so on, quadrupling the rarity for every additional seven miles in height, *ad infinitum*.

From this mode of calculation it will appear, that a single cubic inch of the air we breathe, will, at the distance of 500 miles from the surface of the earth, fill a sphere equal in diameter to the orbit of Saturn—or about 1800 millions of miles.

The refractive power of the atmosphere was known to the ancients, but they had no just idea either of its quantity or its course. Tycho Brahe was the first who settled its just quantity, but he attributed it to causes since found to be erroneous: Kepler was equally unsuccessful. The invention of the barometer, by ascertaining the regular decrease of density of the atmosphere upwards, and the experiments of Mr. Lowthorp, prove that its refractive power is exactly in proportion to the density. A ray of light, therefore, passing through the atmosphere does not describe a straight line, merely broken at one point, as is the case with an object partly emersed in water; but the refractive power increases at every point, and occasions the ray to describe a curve.

The atmosphere has a reflective power, by which rays of light are derived; were it not for this reflective power, the parts of objects opposite to the light would be so dark as to render them invisible; the planets and fixed stars

would be seen as well by day as by night,—darkness would immediately succeed to day without any twilight,—the brightness of the sun would apparently be greatly increased, and the sudden transition from light to perfect darkness, and from darkness to dazzling light, as we turned either to or from the sun, would be extremely injurious to the eye.

The height at which the atmosphere begins visibly to refract the sun's rays, is about forty-five miles, and, in consequence, some have supposed that it reaches no higher; but, as we have already observed, from its expansive force, there is reason to believe that, in an infinitely rarified state, it pervades the whole universe. That it extends far beyond the height of 45 miles, we have demonstrative proof from the circumstance that meteors have been seen floating 60 or 70 miles high. Dr. Halley, in 1719, observed one which, by his calculation, was about 70 miles from the earth, whose diameter was 2800 yards, and which moved at the rate of 350 miles per minute. This meteor was so bright that its splendour almost equalled the noon-day sun; its explosion was heard all over Great Britain; and so tremendous was the concussion, that the earth seemed to shake. These circumstances convincingly prove that the atmosphere extends much higher than 45 miles, as flame cannot be maintained, and sound propagated, *in vacuo*.

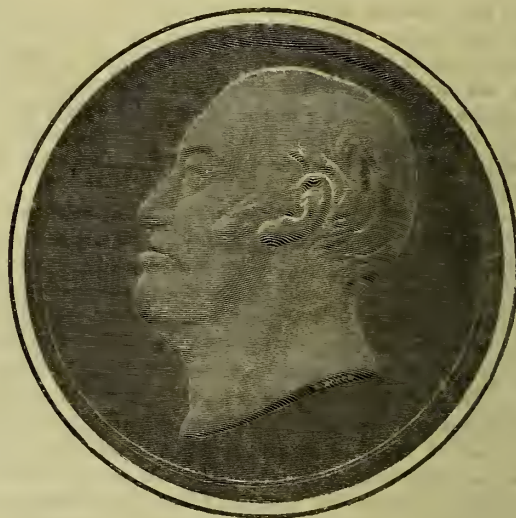
It seems by no means an improbable conjecture, that the fluid we call air exists throughout the whole universe, in a state of rarity that may be called infinite, though it is really finite; that by the attraction of gravitation this fluid's density is greatly increased around the different masses of matter that are dispersed through the empty-rean, and forms the peculiar atmosphere of each.

POETRY: ITS GREAT ANTIQUITY, AND ITS POWER OVER THE MIND.

WE learn from the annals of all nations, that before the invention of letters, the bards' office was sacred, and their persons were held in the highest esteem; and that, through them, the various doctrines of religion, the laws, and the renowned actions of heroes, were transmitted to posterity. It matters not whether we refer to God's chosen people recorded in holy writ, to the regions of classic taste, to the barbarous nations of the north, or to the savage tribes which roamed through the deserts of the east—they all bear evidence of the powerful influence which poetry exercised over the mind, and they all testify its early origin. Moses and Miriam, the first authors known to mankind, sung, on the borders of the Red Sea, a poem of Divine praise, which even at the present day is acknowledged to be a masterpiece of poetical composition. According to Tacitus, the rude and uncultivated Germans, when they dwelt in their forests, caught the flame of patriotism from the hymns of their bards; and it is well known, that in our own land, a high degree of veneration was felt for those who sung the deeds of war, or stimulated the people to acts of valourous enterprise. In short, whether we turn to the page of history for a description of the fierce and barbarous hordes that delighted in blood, or cast our eye over those climates which nature has clothed in luxurious charms, where the song and the lute lent their aid in painting the softer incidents of a pastoral life, certain it is that the power of song was supreme and universal.

And who, while nature sits enthroned on the human heart, shall dispute its magic influence? Who shall say, that when legitimately used, it does not purify the soul, and prepare it for moral and intellectual discipline? Who, indeed, shall dare to cavil at it, while it tends to exalt the best feelings of the heart, or paints vice as a monster worthy of our detestation?

"The poet's eye, in a fine frenzy rolling,
Doth glance from heaven to earth, from earth to heaven;
And as imagination bodies forth
The forms of things unknown, the poet's pen
Turns them to shape, and gives to airy nothing
A local habitation and a name."



Robert Hall

MEMOIR OF MR. ROBERT HALL.

THE individual, who is the subject of the present memoir, was a highly talented man, enjoying great celebrity as a minister of the gospel. He was a Baptist; and his great energies were directed to the advancement of morality and christian principles, through the medium of the tenets entertained by members of that religious sect. Arnsby, a village near Leicester, was the place of his nativity, where his father was pastor of a Baptist congregation, and where the early infancy of young Hall was spent in acquiring the rudiments of learning, and the first principles of his religious persuasion. He was born on the 2d of May, 1764, and was the youngest of fourteen children, six of whom, four girls and two boys, outlived their parents. While young, Robert Hall shewed great quickness in his learning and understanding, and exhibited considerable curiosity; indeed, he was perpetually interrogating those about him to gain information respecting every thing that attracted his attention. When six years of age, he was placed under the tuition of a Mr. Simmons, with whom he continued five years, applying himself in that period very intensely, not only to the tasks required of him, but to many subjects beyond the instruction supplied at the school. He wrote, also, while at Mr. Simmons', many essays, the generality of which were on

religious subjects. The great precocity of talent exhibited by Robert Hall gained him the admiration of many friends, at the instance of one of whom, his father was induced to place him a boarder at the school of the Rev. John Ryland, in Northampton. He remained here about a year and a half, making great improvement in his acquaintance with the classic authors, and in his knowledge of English composition. Subsequently he entered the "Bristol Education Society," an academy for the instruction of young men preparing for the ministerial office among the Baptists. He was placed on Dr. Ward's foundation in October, 1778, then in his fifteenth year, where he continued till 1781, when he was removed upon the same foundation to King's College, Aberdeen. While here, Mr. Hall contracted that intimacy with Mr. Mackintosh, afterwards Sir James Mackintosh, which lasted so long a time. From the pen of Professor Paul, we learn that "it was not as a scholar alone that Mr. Hall's reputation was great at College: he was considered by all the students as a model of correct and regular deportment, of religious and moral habits, of friendly and benevolent affections."

It was while proceeding in his course of studies at Aberdeen, that Mr. Hall, during the recesses, undertook, with some reluctance, to associate himself with Dr. Caleb Evans, as the assistant pastor of the church at Broadmead, in Bristol. Shortly after this, Mr. Hall's academical course of studies was completed, when Dr. Gregory informs us, in the brief Memoir affixed to Mr. Hall's works, that "his mental powers, originally strong, had attained an extraordinary vigour; and with the exception of the Hebrew language, of which he then knew nothing, he had become rich in literary, intellectual, and biblical acquisition." At this period of his life, and at the age of twenty-one, Mr. Hall settled in Bristol, and was almost immediately appointed classical tutor in Bristol Academy; an appointment which he held upwards of five years, conducting it with great zeal and activity, pursuing at the same time the duties that attached to him by his association with Dr. Evans in the pastorate of a Baptist congregation. This connexion, however, by some painful misunderstanding with his friend and colleague, was dissolved after some months had been spent in the fruitless effort of effecting a reconciliation; and at this crisis, Mr. Hall addressed the church, giving them a frank exposition of his tenets and opinions, and which, for the information of our readers, we will transcribe, as follows: "1st. In the first place, I am a firm believer in the proper divinity of Jesus Christ; in the merits of Christ as the sole ground of acceptance in the sight of God; without admitting works to have any share in the great business of Justification; and in the necessity of Divine influence to regenerate and sanctify the mind of every man in order to his becoming a real Christian. Thus far in the affirmative. 2dly. In the second place, I am not a Calvinist, in the strict and proper sense of that term. I do not maintain the federal headship of Adam, as it is called, or the imputation of his sin to his posterity; and this doctrine I have always considered, and do still consider, as the foundation of that system. I believe, we have received from our first parents, together with various outward ills, a corrupt and irregular bias of mind; but at the same time, it is my firm opinion that we are liable to condemnation *only* for our own actions, and that *guilt* is a personal and individual thing. I believe in the doctrine of the Divine decrees, and of course in the predestination of all events, of which the number of the finally saved is one. But this appears to me a different

thing from the doctrine of absolute election and reprobation, as it has ever been explained by Calvinists, which does not meet my approbation. Without going into a large field of metaphysical discussion, this is all I think it requisite to say respecting my orthodoxy; but there are two other points which have occasioned a good deal of conversation, and, from some quarters, a good deal of censure; upon which I shall therefore beg leave to explain myself in a few words. 3dly. I am, and have been for a long time, a materialist, though I have never drawn your attention to this subject in my preaching: because I have always considered it myself, and wished you to consider it, as a *mere metaphysical speculation*. My opinion, however, upon this head is, that the nature of man is simple and uniform; that the thinking powers and faculties are the result of a certain organization of matter; and that after death he ceases to be conscious *until the resurrection*. Much has been said upon my opinions respecting baptism, and I am happy to have this opportunity of explaining my sentiments on that subject in particular; as it affects not only the propriety of my former relation to this church, but of any future connexion I may form with any other christian society. On this point, much mistake, much misrepresentation, I hope not voluntary, has taken place; and on this account I trust you will excuse my dwelling upon it a little more particularly than its importance in other respects might seem to justify. It has been held out to the world by some, that I am *not a Baptist*. I am, both in respect to the subject and the mode of this institution, a Baptist. To apply this ordinance to infants, appears to me a perversion of the intention of the sacred institution; and the primitive, the regular, and proper mode of administration, I take to be *immersion*. Still it appears to me that sprinkling, though an innovation, does not deprive baptism of its essential validity, so as to put the person that has been sprinkled *in adult age* upon a footing with the unbaptized. The whole of my sentiments amounts to this: I would not myself baptize in any other manner than by immersion, because I look upon immersion as the ancient mode, that it best represents the meaning of the original term employed, and the substantial import of this institution; and because I should think it right to guard against the spirit of innovation, which in positive rites is always dangerous and progressive: but I should not think myself authorised to re-baptize any one who has been sprinkled in adult age. I shall only remark, in addition to what I have already said upon this point, that if it be a sufficient objection to my union with a baptist congregation, then, as all Christendom is composed of Baptists or Pædobaptists, it amounts to my exclusion, as a minister, from every christian society throughout the whole earth,—an interdict equally absurd and inhuman, founded upon a conduct merely negative in chimerical situations, seldom or never likely to occur."

Respecting *materialism*, however, we must observe, he renounced the opinion which he entertained of it as above related in his own words, and which he often subsequently declared "he buried in his father's grave."

On leaving Bristol, Mr. Hall proceeded to Cambridge, where he was elected pastor, in association with a Mr. Robinson, who, dying shortly after, left him sole successor. In this appointment Mr. Hall passed many happy and industrious years, "and at length both church and pastor became highly distinguished for piety, harmony, and affection." Dr. Gregory informs us of his personal habits, that "though not precisely those of an absent man,

(they) were those of one whose mental occupations kept his thoughts at a distance from various matters of ordinary observance, and made him regardless of a thousand things which most persons never forget. Thus, on his return from an evening visit, if not watched, he would take a wrong hat or great-coat;—if not sought after by some of the congregation, he would mistake the proper evening of a week-day service, having, in such cases, been so absorbed in study, as to lose a day in his reckoning;—for the same reason, he often mistook the day or the hour of an appointment;—when, on any of his journeys to London, he engaged to take up the letters of his friends, it was not unusual, after his return, to find them all in his portmanteau, or in his great-coat pocket. These, or similar instances of forgetfulness, occurred daily; but, exciting the attention of his affectionate and watchful friends, they seldom exposed him to serious inconvenience. . . . With regard to disposition, the predominant features were kindness and cheerfulness. He never deliberately gave pain to any one, except in those few extreme cases where there appeared a moral necessity of 'rebuking sharply' for the good of the offender. His kindness to children, to servants, to the indigent, nay, to animals, was uniformly manifest."

After the lapse of some years, in which Mr. Hall pursued most indefatigably his manifold duties, and during which he applied much time to a severe course of reading, and enjoyed the society of numerous friends, ill health, doubtlessly brought on from over-exertion, and from an affliction of the spine, which had attended him from his infancy, compelled him, pursuant to the advice of his medical attendant, to resign his pastoral office at Cambridge, which he had thus held fifteen years, and seek, by retirement, ease, and tranquillity, a restoration to health. A.D. 1806. He then proceeded to Leicester, staying a short period with his relatives and friends; visited his native place of Arnsby, and went to Enderby, where he married, March, 1808, and a few months after removed to Leicester a second time. In this latter place he was again the pastor of a large congregation, and lived many years to enjoy his appointment. Indeed, "his residence at Leicester was not only of longer continuance than at any other place, but I doubt not that it was the period in which he was most happy, active, and useful."

The death of Dr. Ryland, in 1825, led to Mr. Hall's invitation to take the pastoral office over the church at Broadmead, Bristol. After much deliberation he accepted the offer; and on the 26th of March, 1826, he dissolved his long and happy connexion with the church at Leicester.

Mr. Hall was in his sixty-second year when he removed to Bristol, and continued in the exercise of his profession till old age and infirmity compelled him, in 1830, to abstain awhile from attempting his arduous duties. He left Bristol for a few months, and, on his return, he entered again into the performance of the office, which he continued exercising but a little while, when the hand of death, which his old complaint in the chest accelerated, snatched him from this sublunary world, February 21st, 1831, aged 67. He died much lamented, and left behind him a wife, three daughters, and one son.

The several emanations from his extraordinary mind have been collected into six volumes octavo, of which, and of their author, we will conclude by quoting these few lines from the *Quarterly Review*, No. XCV.—"More massive than Addison, more easy and unconstrained than Johnson,

more sober than Burke: such are the features of Hall's deliberate compositions; and such is our most willing testimony to their worth."

THE ALEXANDRIAN, OR SEPTUAGINT GREEK VERSION OF THE OLD TESTAMENT.

THE most ancient and valuable of the Greek versions of the Old Testament is the Alexandrian; or, as it is generally termed, the Septuagint. From this version all the translations which were approved by the christian churches were executed, except that into the Syriac. In the Greek, and in most other oriental churches, the Septuagint is exclusively read to this day. Various accounts have been given of the origin of this version: some have asserted its miraculous and divine origin; while, on the other hand, some eminent philologists assert that it must have been the work of various hands, and executed at different times. The most ancient account of it now extant is to be found in a treatise written by Aristeus, in the Greek language. Aristeus states himself to have been an officer in the king of Egypt's guards, at the period when the Septuagint version was made. The account he gives of the Septuagint is delivered in a letter to his brother Philocrates. He states, that Ptolemy Philadelphus, king of Egypt, being desirous to form a comprehensive library at Alexandria, employed Demetrius Phalereus, a nobleman of Athens, who collected 20,000 volumes. In the course of his inquiries after valuable books, Demetrius heard of the "Law of Moses," and named it to the king, strongly recommending a translation of it into Greek. Ptolemy adopted his advice, and forthwith sent an embassy to Eleazar, the high-priest at Jerusalem, requesting him to furnish him with a copy of the Law, and to send also to him some persons capable of translating it. Three nobles of Ptolemy's court, who were friendly to the Jews, took advantage of an opportunity so favourable, and successfully petitioned the king for the Jews, who were taken captive by Ptolemy Soter, and who were still detained. Two of the noblemen, who had thus been instrumental in restoring nearly 200,000 hopeless captives to their native country, were commissioned to carry the letter from Ptolemy to Eleazar. These noblemen, Aristeus and Andreus, took with the king's letter splendid gifts for the temple, consisting of money for sacrifices, and sacrificial utensils, adorned with precious stones of great cost. Their embassy was successful, and Eleazar sent to Ptolemy a copy of the Law, written in gold, upon parchment, of exceeding beauty. From each of the twelve tribes, men of great learning were sent to Alexandria, to execute the translation. Ptolemy was delighted with the beauty of the copy of the Law, and the seventy-two elders were received by him with every possible mark of favour and consideration. During seven days he entertained them sumptuously, and during that time proposed to each of them seventy-two questions, their answers to which fully convinced him of their ability. At the end of the seven days each of the elders received a magnificent present, and they were then conducted by Demetrius to a habitation in the Isle of Pharos. Here they pursued their task with great diligence, collating their several revisions daily, and

dictating the version ultimately approved to Demetrius, who acted as their scribe.

In seventy-two days they completed their translation, which, being sent to Ptolemy, he expressed his approbation of it, and rewarded each of the elders with three rich garments, two talents of gold, and a cup of gold, of the weight of a talent. He then sent them back to Jerusalem, laden with rich gifts, &c. to Eleazar, the high-priest. The translation thus obtained, he commanded it to be placed in the library of Alexandria.

This is the substance of the account given by Aristæus. His account has been questioned by some of the learned, and many other accounts have been given. We, however, cannot coincide in the objection; for, taking into consideration that the labour of seventy-two translators, during seventy-two days, equals the labour of one translator during fourteen years, twelve weeks, and four days, the account is quite credible as to the time employed, and there is nothing incredible in the other circumstances.

BLANKETS.

THE warmth and comfort we derive from having our bodies covered with blankets while we sleep, are owing not to the blankets having the power to produce heat, but to their being composed of a material which will not allow our natural heat to escape from us. This material is very coarse wool; such as is unfit for the finer purposes of the clothier.

Blankets are made in every part of England; but the greatest, and, it is thought, the best manufactory of them is at a town named Whitney, in Oxfordshire.

In South America the sole article of covering worn by day, as well as by night, of many of the poorer inhabitants, is a blanket fastened round the neck by means of a wooden skewer, and about the loins by means of a girdle. The blankets so used are obtained from England, and thus even the poverty and indolence of these poor people affords employment to our workmen and wealth to our merchants.

APHORISMS.

He that derides the religious tenets of another can have but little pretension even to moral feeling, and much less regard to the cause of true piety and religion.

How few are the friends in adversity!

Poverty, like a rainy day, keeps many at home; whilst fortune, like a fine summer's morning, has many flattering admirers. Such, alas! is the difference between clouds and sunshine, poverty and affluence.

A crust with a friend is better than the finest dish in dishonour.

VARIETIES.

WEATHER.—If the Siberian sowthistle shuts at night, the ensuing day will be fine; if it opens, it will be cloudy and rainy. If the African marygold continues shut after seven in the morning, rain is at hand. The convolvulus arvensis, calendula fluvialis, and the anagallis arvensis, or poor man's weather glass, close on the approach of rain.—*Lond. Ency.*

SPEECH OF FISHES.—As fishes have not a larynx, or organ of voice, nor lungs to collect and emit the air, which is to be made vocal by it, they do not communicate their meaning, wants, or feelings, by sounds, like the birds, and quadrupeds. Yet a few make attempts of this sort.—*Sharon Turner.*

ORIGIN OF "COCK-A-HOOP."—"Cock-on-hoop;" our ancestors called that the cock which we call the spiggot, or perhaps they used such cocks in their vessels as are still retained in water-pipes; the cock being taken out and laid on the hoop of the vessel, they used to drink up the ale as it ran out, without intermission (in Staffordshire now called stunning a barrel of ale), and then they were "cock-on-hoop," that is, at the height of mirth and jollity; a saying still retained.—*Blount's Dictionary, 1681.*

LIME.—Animal bodies seem, by some interior though yet unknown process, to produce lime—plants, never. Dr. McCulloch observes, "The solid spoils of animals, chiefly marine, constitute limestones at present, and have produced them at distant and different periods; nor for those of the present times, is there any other origin than animal chemistry." We see one species of this matter in daily formation now by the coral insects; and other kinds in the eggs of birds, in the bones of all animals, in the chalk-stones of the human hands and feet, and in the frequent ossifications of our vascular system.

SEA-WEED.—Every vegetable production is exceeded in size by the prodigious fronds of *macro-cystis pyrifera*. This appears to be the sea-weed reported by navigators to be from 500 to 1500 feet in length, yet its stem is not thicker than the finger, and the upper branches as slender as the common packthread. *Lindley, Nat. Sys.*

LIVING WITHOUT FOOD.—The striped hyena, though it will tear up bodies from burying-grounds, yet lives long without food.—*T. Linn.*

The sloth, *bradyphus*, can live a prodigious time without food; Kircher says, forty days.—*Kerr's Linnæus.*

The bear fasts from the middle of November to the end of winter.—*Ibid.*

In the bird order, Wilson states of the whitebreasted hawk, "One lived with me several weeks, but refused to eat. Though he lived so long without food, he was found, on dissection, to be exceedingly fat."

Those animals which live on particular roots, herbs, or insects, can have this food only in the season while these things are existing.

"HOBSON'S CHOICE."—This is one of the most common proverbial expressions in the English language.

Thomas Hobson was a carrier at Cambridge. He died the 1st of January, 1630; and Milton, who was a student at the University of that place, wrote a whimsical epitaph to his memory.* A figure of him, *en fresco*, was also set up at the Bull, in Bishopsgate-street, which was the inn he frequented when in London, and which, with an appropriate inscription, might have been seen within these few years.† To his employment as a carrier, he added the business of supplying the students with horses; and having made it an unalterable rule that every horse should have an equal portion of rest and labour, he would never let one out of its turn; and hence arose the saying of "Hobson's Choice,"—"this, or none."—*J. Brady.*

INSENSIBILITY.

INDIFFERENCE is to the mind what tranquillity is to the body, and insensibility is to the mind what lethargy is to the body. Bodily lethargy is an excess of tranquillity, and

* See Milton's Poems, with Notes by Warton, second edition, p. 313. 1791.

† Within about thirty years, (See Spectator, Number 509.)

superinduced by an exceeding indulgence of it; and insensibility is, in like manner, an excess of indifference, and grows naturally and inevitably out of an indulgence of the habit of indifference. Tranquillity of body is desirable; but that excess of it which we call lethargy is at once a vice and a disease, incapacitating him who is subject to it alike for his own enjoyment of life and for his performance of life's duties. And what is true of bodily lethargy is no less so of mental insensibility; each of them is an excess, a vice, and a disease. Indifference, properly regulated and limited, is of important service in the formation of a manly and virtuous character. It preserves the mind from fantastic desires and wild chimeras, and the heart from violent and rash impulses; in the first case it saves its possessor from an infinity of follies, in the last it preserves him from sin and its consequent compunction. Alas! how many a noble soul has been hurried into the most hideous crimes by a fervid and unchastened imagination! How many have perished miserably and ignomi-

niously, and entailed suffering and disgrace upon their surviving friends, merely from lacking a wholesome portion of indifference!

But though indifference is thus valuable, nay, thus indispensable, to the formation and support of a manly and virtuous character, its extreme, insensibility, is a moral Upas; the former preserves the heart and mind from violent and evil impulses, but the latter annihilates all moral feeling, deadens the mental faculties, and renders the heart torpid, the head dull, and the visage gloomy.

It was no less truly than prettily said, by one of the French Encyclopædists, that "indifference makes philosophers, and insensibility makes ministers." Extremes ever meet; and while we must cultivate indifference as a mean by which to preserve our hearts from fierce emotions, we must no less sedulously guard against insensibility—which will lead us, by another but a less sure road, to the vices which degrade, or to the crimes which at once scourge and disgrace, our common nature.

Literary Review.

63. *Algiers, with Notices of the Neighbouring States.* By P. B. LORD, M.B. 2 vols. 12mo. London: Whittaker.

SINCE the occupation of Algiers by the French, that place and its neighbourhood have engaged more the attention of Europe than previously. The present work affords us considerable information on the subject; provides us with particulars as regards the native inhabitants, the topography of the place, geology, climate, and many diseases that prevail among the people; not only of those resident in Algiers, but in the states adjacent.

The concluding portion of the work excites much interest from its detail of the almost incredible barbarity which the French have exercised towards this conquered people; indeed this part alone will doubtlessly obtain for the work considerable patronage.

64. *New Facts regarding the Life of Shakespeare. In a Letter to Thomas Amoyt, Esq. from J. PAYNE COLLIER, F.S.A.* 12mo. Pp. 55. London: Rodd.

MR. COLLIER tells us that the most interesting of these facts are derived from the manuscript of Lord Ellesmere, Keeper of the Great Seal to Queen Elizabeth, and Lord Chancellor to James I., which are preserved in Bridgewater-House, and to which he obtained access through the liberality of Lord Francis Egerton, and from which he also obtained permission to extract any useful or historical information. Respecting the arrival of Shakespeare in London, we learn from these papers that it was seven years earlier than the generally received opinion. Mr. Collier's words are these:

It is not likely that Shakespeare joined James Burbage's company until seven or eight years subsequent to 1579: he came to London for that purpose in 1586 or 1587, according to the most probable conjectures, and did not begin to write for the stage, even by the alteration of older plays,

until 1590, or 1591. The earliest date at which his name has hitherto been mentioned in connexion with the Blackfriars Theatre, is 1596, in a petition to the Privy Council, which I first printed in the "History of Dramatic Poetry," i. 298; but the MSS. at Bridgewater House now enable me to furnish, not only the name of Shakespeare, but the names of the whole company of sharers seven years earlier, and only two or three years after our great dramatist made his first appearance in the metropolis. Shakespeare, in November, 1589, had made such way in his profession, as to establish himself a sharer with fifteen others, eleven of whose names precede his in the list, and only four follow it. They stand thus, and the enumeration is, on other accounts, remarkable:—James Burbage, Richard Burbage, John Laneham, Thomas Greene, Robert Wilson, John Taylor, Anthony Wadson, Thomas Pope, George Peele, Augustine Phillips, Nicholas Towley, William Shakespeare, William Kempe, William Johnson, Baptist Goodall, Robert Armin. This information seems to me to give a sufficient contradiction to the idle story of Shakespeare having commenced his career by holding horses at the playhouse door; had such been the fact, he would hardly have risen to the rank of a sharer in 1589, as it indisputably appears he was on the authority of a subsequent document, which must have been transmitted to Lord Ellesmere with others, of which I shall speak hereafter.

The author proceeds to relate the circumstances of Shakespeare's connexion with these theatricals, and of the value of the property enjoyed by them all, individually and collectively, which is taken from a document attached. As our interest is more engaged with the affairs immediately relating to our great dramatist, we will subjoin another extract referring to him alone:

Till now, all has depended upon conjecture, both as to the value of theatrical property generally in the time of Shakespeare, and as to the particular sum he may be supposed to have realized as an author of plays, and as an actor of them. . . . We are to presume that the materials for this statement were derived from the actors, and that they made out their loss as large as it could well be shown to be, with a view to gaining full compensation; but if each share produced on an average, or (to use the terms of the document), "one year with mother, 33l. 6s. 8d. the twenty shares would net an annual sum of 666l. 13s. 4d. or somewhat less than 3,400l. of our present money." Shakespeare's annual income from the receipts at the Blackfriars Theatre, without the amount paid him

for the use of the wardrobe and properties, would therefore be 133l. 6s. 8d. It is possible, however, that there might be a deduction for his proportion of the rent to Burbage, and of the salaries to the "hired men," who were always paid by the sharers. To this income would be to be added the sums he received for either new or altered plays. At about this date it appears that from 12l. to 25l. were usually given for new dramatic productions. Much would, of course, depend upon the popularity of the author. At the lowest computation, therefore, I should be inclined to put Shakespeare's yearly income at 300l. or not far short of 1,500l. of our present money. We are to recollect that in 1608 he had produced most of his greatest works, the plausible conjecture being that he wrote only five or six plays between that year and his final retirement from London.

65. *A Dictionary of Practical Medicine: comprising General Pathology, the Nature and Treatment of Diseases, Morbid Structures, and the Disorders especially incidental to Climates, to the Sex, and to the different Epochs of Life. &c. &c.* By JAMES COPELAND, M.D. F.R.S. Parts I. II. and III. London: Longman and Co.

A WORK of immense utility, and of high reputation, conveying in a most lucid and philosophical manner abundance of information. It will be found a great desideratum in the library of a medical student, and equally important to the general reader, and to the man of science.

TO CORRESPONDENTS.

"E. D."s wishes will be attended to. A model of the machine "R. S." alludes to is exhibited at the Adelaide Gallery. If a "Constant Subscriber" would furnish us with the drawing, it should be taken into consideration.

GUIDE TO KNOWLEDGE.

No. CXXXIII.

SATURDAY, SEPTEMBER 13, 1834.

PRICE
ONE PENNY



ST. PETERSBURGH.

ST. PETERSBURGH.

THE annals of the world scarcely present to us so wonderful an instance of the effects of wealth and power, when combined in any undertaking, as the rise of such a city as St. Petersburg from an unwholesome morass in so short a time. A little more than a century ago, not one human habitation existed, where now superb palaces and magnificent temples rear their elegant fronts; wolves and bears maintained undisputed dominion, where, at present, splendid equipages roll; and countless throngs of human beings pass and repass continually.

We have already spoken of the origin of Petersburg in our account of the "*Benediction of the Neva*," (No. CIV. page 93). Its prosperity was greatly promoted by a ukase or ordinance, which transferred the commerce of Archangel thither; thus ruining one city for the advantage of another.

The inundations of the Neva are calamities to which this splendid city is frequently subject, and against which no precautions can avail. In 1715 all the bastions and drawbridges were overwhelmed or carried away, and similar mischief has occurred since. The breadth of the river, the rapidity of the stream, and the inundations already mentioned, prevent permanent bridges being thrown across it.

The streets of St. Petersburg, one of which, with the river, is the subject of the Engraving on the other side, are, in general, wide and regular, and three of the principal ones, which meet at the Admiralty, are each, at least, two miles in length. The mansions of the nobility are sumptuous and spacious structures, and the imperial winter palace is of colossal dimensions, being 500 feet in length, and 350 in breadth; the magnificence displayed both in and around this structure, almost exceeds belief.

In the same quarter with the winter palace, are the gardens, which belonged to the summer palace before the edifice was taken down; they are well laid out, and adorned with fountains and statues, and form a very agreeable place of recreation for the inhabitants, who are permitted free access to them.

The causeway which forms the entrance to these gardens is truly worthy of notice. It is supported by thirty-six columns of granite, connected by an iron palisade of exquisite workmanship, designed and executed by a Swede.

In one of the four squares which adorn this quarter of the city, is the celebrated colossal statue of PETER THE GREAT, admirable as it respects both the magnitude and the workmanship: the following is a representation of it. The statue of the Czar is eleven feet high, and that of the horse, which is in a climbing attitude, seventeen. The rock, which forms the pedestal, is of great size, and was brought from Finland at an expense of 70,000 rubles.

Every thing about this statue is admirably expressive. The steep ascent, up which the horse is climbing with such fiery eagerness, spurning the serpent of envy, is intended to represent the difficulties which attended the founding of St. Petersburg, and the introduction of civilization into Russia; while the composed tranquillity of Peter finely intimates with what coolness he contemplated, and with what firmness he overcame, the most formidable obstacles.



The design is masterly, the attitude bold and spirited, and the whole appearance graceful and animated. The entire expense of its erection was 424,610 rubles.*

The grand church of St. Isaac, intended by the Empress Catherine to be the most sumptuous in the city, is erected on a basement of granite; the superstructure, both within and without, being of marble, jasper,† and porphyry:‡ but it was not finished in her reign; and her successor ordered it to be completed with brick.

One of the most noble structures in St. Petersburg is the Bank; and the Arsenal is a grand and spacious edifice, wearing an aspect of dignity correspondent with its design. Many other public buildings highly deserve the attention of the traveller; and several of the churches and convents are ornaments to the city.

The part of the city called Petersburg Quarter, consists of islands, on one of which is the wooden cottage which Peter the Great inhabited, whilst engaged in building the city. To preserve it from the inclemency of the weather, it is sheltered by a structure of brick erected on arches. Others are covered with forest trees, and one is highly embellished by art, and laid out in walks, parterres, and avenues, with plantations and shrubberies. On the island, in the Neva, is the citadel, a strong fortress, which serves likewise as a state prison. This fortress has two gates, the access to one of which is over a drawbridge, and to the other by water only. Within the

* A ruble is valued at 4s. 6d.

† JASPER is of a complex irregular structure, of great variety of colours, and emulating the appearance of the finer marbles, or semipellucid gems. One of the great characteristics of jaspers is that they all readily strike fire with steel.

‡ A kind of stone of a plain uniform mass, spotted with separate concretions, of various colours, of great hardness, and giving fire to steel.

walls of the citadel is the church of St. Peter and St. Paul, in which the remains of its founder, PETER I. repose. And here also are the gold and silver assay offices, and the Mint.

The climate of St. Petersburg is, in winter, so severe, that persons walking the streets frequently have their faces and hands frost-bitten; friction is a proper remedy for this misfortune, as a sudden approach to the fire would occasion excruciating pain, and probably mortification. As the coachmen of the nobility and gentry still wear long beards, icicles are frequently seen pendent from them; and it sometimes happens that servants are frozen to death while waiting for their masters. To guard, as much as possible, against such terrible accidents, large fires of whole trees piled one upon another are maintained in the court-yard of the palace, and in the places of the greatest resort.

It is in such a climate as St. Petersburg, that the advantages of commerce and of the sciences are now particularly visible. By the labours of art, the culture of the kitchen garden is brought to such perfection, that the most delicate exotics* may be obtained at any season of the year, by means of forcing-houses, which are admirably well managed. The supply is not, however, equal to the demand, and great quantities of fruit are brought from the southern parts of the empire, and from foreign countries. Carcases of sheep, calves, and hogs, great numbers of wild and tame fowl, and game, are brought to the market in winter, in a frozen state, by which they are much better and longer preserved than by salt.

The police of the city is admirable; the proper magistrates must possess a correct list of all the inhabitants, each in his respective quarter; and every householder must report to the police any stranger that lodges in his house. a watchful eye is kept over all that passes, and travellers cannot leave the city without giving notice of their intention by public advertisement, that all having claims upon them, may prefer them, and get them adjusted.

The police is supported in its authority by five hundred watchmen, and by a regiment of hussars, should its assistance be necessary.

St. Petersburg has a very extensive commerce, which chiefly arises from its being the seat of the sovereign, and from foreigners having the same privileges as the natives; and all religions are tolerated. The merchants settled here are chiefly foreigners, many of whom are English. The number of Russian merchants trading outwards is very small; and they are, for the most part, very ignorant. In no place is so much experience requisite in a merchant as at St. Petersburg; for he must know the people before he deals with them; he must be acquainted with the different forms and obligations of contracts, the various manners of payment; the many formalities called justice; the various occasions and manners in which he may be cheated without redress; the different explanations that the tariff† admits of; the monopolies; privileges of the crown; prohibitions of exports and imports (changed sometimes as soon as issued); in short, all the numerous difficulties and shackles imposed on the empire. Its principal exports are hemp, flax, iron, leather, furs, and tallow. Russian flax is much esteemed for the length of its threads; it is naturally of a brownish colour, but becomes very white after bleaching. The best hemp, called clean, is long and

thin. The iron is of a very good quality; there are two kinds, old and new sable; the former is the better. Leather is divided into many sorts; the best is called *gave*. The principal imports are coffee, sugar, indigo, dye-woods, spices, cotton twist, salt, &c. Refined sugars are prohibited; the importation of hardware, earthenware, and manufactured goods, is occasionally prohibited. The inhabitants, also, carry on a very considerable trade by land with the Chinese and Persians. Their chief manufactures consist of woollen and linen, paper and powder. Here are also yards for making ropes, cables, and tackling for ships; and a foundry where cannon and mortars are cast. A road is made between St. Petersburg and Moscow, in a straight line across the forests, planted with trees on each side, and which is 355 miles in length. It was finished in 1718.

St. Petersburg is considered one of the handsomest cities in Europe. It was founded in 1703, by Peter I. Its population is now about 340,000.

THE METHOD OF ACQUIRING KNOWLEDGE.

(Translated from the *Introductio ad Sapientiam* of Vives.*)

1. PROFOUND learning is acquired by means of these great instruments, Genius, Memory, and Study.

2. Genius is improved by exercise.

3. Memory too becomes stronger by practice.

4. By intemperance and luxury they both are weakened; by health both are strengthened and increased, by sloth and long intermission they are enervated; but by frequent use they become quick, and are ever ready to the call.

5. While reading be strictly attentive; when you listen, lose not what is spoken; let not your mind wander to other subjects, but force its energies to the one, the only one, you bring before it.

6. When the mind does swerve, recal it by a gentle whisper; put aside those daring thoughts that interrupt the subject of your present studies to a fitter opportunity.

7. Know that inattention to what you read or have to hear is a sacrifice both of time and of the invention.

8. Be not ashamed to ask concerning that, whatever it may be, of which you are ignorant. Blush not to be taught by any person, however inferior he may be in rank or age; for the greatest men have not been ashamed of it; blush rather for your unwillingness to learn, than for your ignorance of learning.

9. Boast not of knowing what you are ignorant of; on the contrary, apply for it to those who are supposed to know it.

10. If you wish to appear learned, endeavour to be so; there is no shorter method; and in like manner no better

* Vives, (John Lewis) was a native of Valentia in Spain, where he was born in 1492. He became very celebrated as one of the revivers of literature: and after studying at Paris and Louvain he visited England, and was appointed tutor to the princess Mary, whom he instructed in polite literature, and in the Latin language. He obtained great favour with the king, Henry VIII.; but venturing to write his opinions respecting his divorce from Catherine, he met with disgrace and imprisonment. He regained his liberty, however, and went over to Brussels, where he married and lived a teacher of the belles lettres. He died in 1541, leaving behind him many works which exhibit his great strength of judgment, and show him to have had a mind far superior to the age in which he lived.

* EXOTIC, foreign; but produced in one's own country.

† Annual list of duties.

expedient can be found of being thought good, than in actually being so.

11. In fine, whatever you wish to appear, strive to be in reality, else your wishes will be profitless and vain.

12. Time impairs what is false; yet it strengthens what is true.

13. Deception is but of short duration.

14. Follow your master, rather than show an inclination to outrun him; yield to him, rather than oppose him.

15. Love him, and look up to him as to a parent; give credit to his observations, and esteem them to be correct.

16. Be but once reprov'd for error, and never commit a fault a second or a third time; be improved by gentle reprehension.

17. Endeavour to remember in what you once have erred, lest from negligence you again do wrong.

18. Every one is apt to err, but it is the slothful that alone persevere in error.

19. Bear in mind that there is no sense through which we imbibe knowledge more speedily than through that of hearing.

20. Nothing is there easier, and nothing is there more useful than to hear much.

21. Shew not an inclination to listen to what is trifling, ridiculous, or absurd, rather than to what is prudent, praiseworthy, or grave.

22. Both the ridiculous and the praiseworthy demand equal attention; but in the advantage resulting from them there is a great disparity indeed.

23. Let not your endeavours be to answer much, but to answer to the purpose, and in proper time.

24. Turn not your eyes alone from what is shameful and indecorous, but your ears also. Remember the old saying, "Evil communications corrupt good manners."

25. Wherever you may be, listen attentively to every thing that is said.

26. From the wise you may learn what will improve you:

27. From the foolish you may know how to be more guarded.

28. Adopt what is approved by the wise.

29. Shun that which is lauded by the foolish.

30. Treasure in your mind every observation commended either for its wit or its decorum, for its wisdom or for its erudition, for its genius or its urbanity; so that when the opportunity offers, you may use it to your advantage.

31. Any remark you may meet with while reading or in conversation, and that you think excellent or useful, put down in a memorandum-book which you should keep with you for the purpose: this will enable you to refresh your memory when a similar remark or expression you may require.

32. Be not satisfied with understanding the words alone of what you read, but enter fully into the spirit and the meaning of the author.

33. After you have been reading, or heard what has been read, repeat it to your companions, to one in one language, to another in another, as far as your capabilities will allow you; and be sure, to the utmost of your power, to use the same elegant expressions, and adopt the same turn of thought employed by your author: this will not only render your memory particularly retentive, but give you likewise a great command of words.

34. If you wish to speak well and fluently, no exercise is better than frequently to compose.

35. Write, re-write, and frequently make extracts; never read without a pencil in your hand; and suffer not a day to pass without composing a letter to some friend, and such a one that he may answer it; show your letter to your tutor, and profit by his observations on it.

36. Never let your memory be at rest.

37. There is no faculty that likes so much to be employed as the memory; nor is there one that improves more by exercise.

38. Every day entrust to it some one thing or other.

39. The more you commit to the care of memory, the more faithfully will it retain every thing; and the less you trust it with, so much the more will its retentive power become relaxed.

40. Indulge your memory with a little respite after you have learned anything by heart; but some time after forget not to demand of it that which you have deposited.

41. Whatever you wish to learn by heart read over several times with the greatest attention, just before you retire to rest: in the morning call your memory to account for that which you over-night committed to its custody.

42. Beware of intoxication, and be ever careful of your bodily health.

43. Wine is the death of memory.

44. Suffer not a day to pass without reading, hearing, or writing something that may either add to your acquirements, improve your judgment, or strengthen your love of virtue.

45. When about to retire to your bed, read, or have read to you something worthy to be remembered; so that your wakeful moments may be diverted, and your dreams even rendered useful as well as agreeable.

46. With our lives the study of wisdom ought to live; it can only end with life itself.

47. No pleasure can be found superior to that of extensive knowledge: and nothing is there more beneficial than proficiency in virtue.

48. Study enhances prosperity, and alleviates adversity; it restrains the heedless impetuosity of youth, and lightens the burdens of old age: it accompanies, and even protects us; it assists and delights us too, both when we are at home and when we are abroad, in public and in private, in solitude and in the busy scenes of life.

USEFUL MAXIMS.

WHEN I consider the boundless activity of our minds, the remembrance we have of things past, our foresight of what is to come; when I reflect on the noble discoveries and vast improvements by which these minds have advanced arts and sciences; I am entirely persuaded, and out of all doubt, that a nature which has in itself a fund of so many excellent things, cannot possibly be mortal.—*Xenophon*.

Many new years, indeed, you may see, but happy ones you cannot see without deserving them. These, virtue, honour, and knowledge alone can merit, alone can produce.—*Lord Chesterfield*.

If it be by indiscreet levity that any one has spoken against us, we ought not to regard it; if it is by folly, we ought to pity him; if it be by ill-will, we are very ready to pardon him.—*Theodosius*.

ELECTRICITY.

ELECTRICITY originally denoted that power which amber possesses, of attracting light bodies when excited by rubbing, or, as it is scientifically called, *friction*. It is so denominated from the Greek word *electron*, which means amber.

Subsequent discoveries have proved, that this power is not confined to amber, but resides in glass, and all other vitreous substances, resin, sealing-wax, &c.; and that all bodies with which we are acquainted contain a portion of a fluid, called the electric fluid, which is produced by *friction*, and, in a dark room, has the appearance of small flashes of divergent flame darting in the air.

Bodies that can be excited to ELECTRICITY are called *electrics*, and, as they do not convey electricity from one body to another, they are also called *non-conductors*; such as cannot be excited are termed *non-electrics*, and, as they are capable of conveying electricity from one body to another, they are also called *conductors*. Of the former, the principal are,—glass, precious stones, amber, sulphur, resinous substances, wax, silk, cotton, hair, feathers, oils, &c.; of the latter,—all metals, charcoal, animal fluids, water, crystallized salts, &c. When bodies possessing their proper quantity of the electric fluid come in contact, no effect is produced; but when two bodies, one possessing greater, and the other less than the proper quantity, approach near each other, a discharge takes place, and the equilibrium is restored.

A body possessing more than its proper quantity of electricity, is said to be *plus*, or positively electrified; and a body containing less than its proper quantity of this fluid, is said to be *minus*, or negatively electrified. Bodies electrified either of these ways repel each other; but if some are electrified *plus* and others *minus*, they attract each other: and again, if one body is not all electrified, and another is electrified *plus*, they also attract each other.

Before the invention of the electric machine some experiments were made by means of a glass tube; thus,—take a glass tube, not less than half an inch in diameter, rub it briskly with a dry silk handkerchief, or piece of flannel, backwards and forwards, and it will alternately attract and repel several times a downy feather, or any other light substance; the tube must be clean and dry. If the knuckle be presented to the closed end of the excited tube, a snapping will be distinctly perceived, and the finger will receive a slight shock; should the experiment be made in the dark, the snap will be accompanied with a luminous spark, passing between the finger and the glass.

Conductors are so called, because, though they cannot be excited to electricity, yet, when brought in contact with, or very near to an excited electric, they will receive from it a portion of the electric power, and thus become capable of exhibiting appearances similar to those of the electric.

Thus, if a metallic rod, with one end pointed, and having a knob at the other, be placed with its point towards an excited electric, the rounded end will attract light bodies and emit sparks. By these conductors, the electric fluid may be conveyed to any distance from the excited body; if a chain be attached by one end to an excited electric, and the other end be held by a person stationed miles distant, (should the chain be long enough,) that person will experience a shock, and draw some electric sparks.

The same substances in different states are conductors, and non-conductors: thus, green wood is a good conductor; baked wood is an electric; charcoal is a conductor, but wood-ashes are an electric. When a body is placed in contact with an excited electric, it cannot be charged with electricity while it communicates with the earth by means of a

conductor, as a table, &c.; to electrify it, therefore, it must be placed on a non-conductor, as a stool or table with glass legs, a cake of wax, resin, or the like; it is then said to be *insulated*.

Bodies surcharged with similar degrees of electricity, when brought near, repel each other; while a body that is positively electrified, or surcharged with the electric fluid, will attract another body that is negatively electrified, or deprived of some of its electric fluid.

The reason of this seems to be, that the body which has more than its share of this subtle fluid attracts the one that has less, in order to impart this superfluity to it, and thus restore an equilibrium.

The friction of a conductor and non-conductor tends to destroy this equilibrium, one of the bodies always acquiring positive and the other negative electricity.

These and other wonderful properties of the electric fluid having been discovered, philosophers began to contrive machines, for the purpose of making more important experiments; and glass having been found most suitable to the purpose, was universally employed in their construction.

At first, the electrical machine was in the form of a globe of glass; next, of a circular plate of glass; but the present approved form is that of a cylinder of glass as in the annexed figure.

This machine consists of a cylinder of glass, *A* turning on an axis that passes through its centre. The electric fluid is generated by the friction of the cylinder against a pair of cushions placed at its sides, and which are made to press the glass with any degree of force, by means of regulating screws. Two brass conductors, *B B*, collect the electric fluid as fast as it is produced.

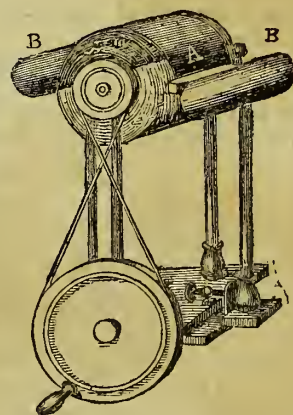
The cushion or rubber, by which the cylinder is excited, in its rapid rotation, is of black oiled silk, covered with an amalgam prepared in the following manner:

Take a certain quantity of zinc and place it over the fire in an iron ladle; when the ladle is red hot, put a small quantity of tallow, or suet, on the zinc, and it will immediately melt. When the zinc is melted, add four or five times as much mercury, previously heated to the degree of boiling water; stir the mixture a little, and when cool, rub it in a glass mortar till the fat be thoroughly incorporated; it is then fit for use.

To know where to apply the amalgam, draw a line on the cylinder with whiting, dissolved in spirits of wine; on turning it, the whiting is deposited on such parts of the cushion as rub against the glass, and there the amalgam must be applied.

The conductor to a cylindrical machine is usually a tube of copper, brass, or tinned iron, or even of pasteboard covered with tin foil, or gold leaf; this cylinder is covered at both ends by spherical covers, made to fit with the greatest accuracy.

At the end next the cylinder a row of metallic points is fixed for receiving the electric fluid; at the opposite end is a wire with a brass knob. The leg on which it rests is of glass, covered with sealing wax.



When the cylindrical machine is to be used, clean it well, and wipe the silk flap with which it is partly covered; then grease it by turning it against a greased leather till its surface is uniformly obscured; turn the cylinder till the silk flap has wiped off so much of the grease as to render it semi-transparent. Put some amalgam on a piece of leather, and spread it well, so that it may be uniformly bright. Apply this against the turning cylinder, until the friction has increased to its utmost. Remove the leather, and the machine will be fit for action.

For the purpose of measuring the degree of electricity imparted to any body, instruments called electrometers have been invented; the simplest of these consists of two fine threads with a pith or cork ball at the end of each; when electrified, they will recede from each other to a distance in proportion to the quantity of electricity excited.

But the most useful instrument of this kind is the quadrant electrometer. The stem is usually made of wood, and the semi-circle of ivory, the lower half of which is divided into ninety degrees; from the centre of the semicircle hangs a rod of light wood, with a knob at the end, of pith or cork, to serve as an index.

If this electrometer be placed in contact with the body to be electrified, the index will rise as the charge proceeds, until it points to 90 degrees, which indicates the greatest intensity of electricity.

(To be continued.)



ROMAN LUXURY.

(Continued from p. 316.)

WHAT a change had taken place in the times! Under Romulus, two acres of land constituted a rich man—nobody possessed more. In this state, things continued for a considerable time. Almost three centuries afterwards, Cincinnatus, the dictator, was distinguished as the proprietor of four acres. About two hundred years later, Attilius Regulus had seven; nay, but a short time previous to the establishment of the monarchy, the income of the first senator, Scaurus, scarcely amounted to 1500*l.* sterling. This standard held good in other particulars. A certain Tatia was considered to have brought her husband a very large dowry; it amounted to about 200*l.* The senate gave a like sum for the dowry of the daughter of the great Scipio. A female, named Megullia, received the surname of *Dotata*, because she had for her dowry the prodigious sum of 100*l.*

Money, the plunder of the whole world, accumulated to such a degree, that the rate of interest gradually fell from 100 to 3 per cent. Landed estates, on the other hand, naturally rose exceedingly in value.

An inordinate profusion was the consequence of this prodigious wealth. Horace makes mention of one Tigellius, who, in five days, squandered 5000*l.* Martial diverts himself at the expense of a man named Cinna, who, in less than a year, ran through 40,000*l.* Milo dissipated not only his own patrimony, but likewise three millions and a half of sesterces, the property of others. Apicius expended a million more, merely in his kitchen. "I want twelve millions and a half of sesterces," said Cæsar, the dictator, "in order to possess nothing;" meaning only to pay his debts. The erection of the forum alone, indeed, cost him five millions. This, however, was nothing in comparison of the wants of

Caligula, who, in less than a year, lavished away a hundred and sixty-five millions. How did he contrive to do this? Suetonius informs us, "He invented new baths, and new ways of preparing food; drank the finest pearls dissolved in vinegar; caused golden leaves to be set before his guests; threw money among the people; constructed galleys, the poops of which were covered with precious stones. The sails were formed of the most costly stuffs; in the interior were baths, covered passages, banqueting-rooms, decorated with vines and fruit trees. In vessels of this kind, provided with bands of music, he sailed along the coasts of Campania. When he constructed palaces, his invention was upon the rack to contrive something that appeared impossible to be accomplished; moles were thrown up in the deepest and most tempestuous seas; rocks were removed, valleys transformed into mountains, and mountains into valleys; every thing was required to be done with the utmost celerity, the least delay being punished with death." It is not difficult to conceive that in this way he might have squandered such a trifling sum in less than a year. But the emperor was not alone tormented by this spirit of profusion; the citizens copied his example as closely as they could. Seneca relates, that they began with ornaments for the person; then transferred their extravagance to their habitations, and lastly, to their tables.

I shall quote the most striking instances of each of these species of luxury. A smooth skin, a painted face, (the men painted as well as the women,) a mincing careless gait, were indispensable requisites of *bon ton*. Julius Cæsar himself took more pains with his person than became a hero; he very often had his hair cut, and even plucked up, and was fond of wearing his wreath of laurel to hide his baldness. * What very different things are, now-a-days, concealed beneath a crown of laurel! He likewise wore an uncommon embroidered purple habit, with sleeves which reached down to the wrists.

The young gentlemen most carefully constructed with their hair an edifice, which rose by gradations; they anointed themselves; polished and rubbed their faces with crumbs of bread; imitated the softness of the female voice; and, in short, afforded a rich subject for the epigrammatists of that time. Their clothes were kept at home in a press, that they might retain their gloss. Their wardrobes contained a numerous assortment. A prætor, who was going to give an entertainment, one day requested Lucullus to lend him some dresses for the musicians. "How many do you want?" asked Lucullus. The prætor modestly asked for no more than one hundred, and Lucullus ordered two hundred to be given him. The *élégantes* changed their clothes very often during a single meal, and never took less than a dozen suits with them to the bath. They wore surtouts, or great coats, which cost 50*l.* apiece.

The benches on which they lay round the table, were likewise an object of the most extravagant luxury. Metellus Scipio reproached a certain Capitus with paying 4000*l.* for a Babylonian bench for this purpose. Nero afterwards bought the same for upwards of 160,000*l.* This account appears scarcely credible; but the fact is related by Pliny. This prodigious price was determined by two qualities; the colour, which was purple, and the material, silk. A pound of purple was at first worth 2*l.*, and at last 20*l.* Respecting silk, Seneca exclaimed, "I have seen silken garments, if, however, they may be denominated garments, which do not hide the body, and were so transparently fine, that one would hardly believe that any covering was worn."

These garments, nevertheless, were only half silk; for those made entirely of silk, were not introduced before the reign of Heliogabalus. The passion for ornaments, such as

pearls, emeralds, and precious stones, had arrived at such a pitch among the Roman ladies, that they were not thought more than ordinarily dressed when they wore 200,000*l.* worth. Seneca asserts, that they wore pendants in their ears, which were equivalent in value to the whole property of an opulent family. Julius Cæsar purchased for Servilia, the mother of Brutus, to whom he was particularly attached, a single pearl at the rate of 30,000*l.* A pair of pearls, belonging to Cleopatra, were valued at 50,000*l.* By degrees, a greater number of pearls were strung together, so that the ears were lengthened by their weight.

The neck and arms were also encircled with pearl necklaces, bracelets, and chains, of which the fathers, Jerome and Tertullian, with pious horror, assert; the former, that a single necklace surpasses several villages in value; and the latter, that they cost 5000*l.* and that whole forests and islands are scarcely sufficient to defray the expenses of those ornaments.

Rings were worn on every finger by men and women; nay, even each joint of every finger was adorned with them. When Nonius, the senator, was banished by Antoninus, he took with him a single ring worth 100,000*l.* Girdles, swords, and scabbards, were also ornamented with costly stones. The shoe-strings were of gold, enriched with precious stones. Parasols and fans glistened with gold. "The daughters of freed-men," exclaimed Seneca, "now squander, upon a single mirror, more than the whole amount of the dowry decreed by the senate to the daughters of Scipio."

Without a train of eight or ten servants, it was impossible to appear in public with decency. This, indeed, was a very modest retinue, with which the advocates alone contented themselves. Others went abroad surrounded with fifty or more attendants. Horace relates of Tigellius, that he often had a train of two hundred. Others again had ten thousand, twenty thousand, and even a still greater number of slaves; not for the sake of their services, as Athenæus attests, but merely that they might appear in public with the greater pomp. It must not be supposed, that this numerous retinue exhibited the same ragged spectacle as the hosts of servants belonging to some of the Russian grandees: all those who composed it were clothed in the most splendid attire. The fair sex vied with the men in this species of ostentation. Marcellinus, for instance, exclaims, "With what a train many matrons parade upon sofas, through all the streets of the city! Like experienced generals, who first oppose the closest ranks to the enemy; next the light armed troops; then the slingers; and lastly, the auxiliaries; the conductors of such a procession are busily engaged in marshalling the multitude. They place all the persons belonging to the weaving establishment at the head; then follow those who belong to the culinary department; and next the promiscuous crowd of servants, whose ranks are swelled by all the idle people of the neighbourhood; and lastly, the troops of eunuchs, with their pale and haggard faces." St. Jerome also speaks of a whole host of eunuchs, among whom the fools, (*meriones*) cost a higher price, sometimes as much as 100*l.*, whereas a rational slave might be purchased for 30*l.*

If females indulged in such excessive luxury abroad, it may easily be conceived that they were not less extravagant at home. The household utensils and implements of one family, and which were not of the most expensive kind, were valued by Martial at 50,000*l.* A single hatchet, probably of gold, cost 20,000*l.* Culinary utensils, plate, and even the carriages, were of silver. There were dishes of that metal which weighed a hundred pounds. A slave of the emperor Claudius, named Drusillanus, served up the first course in 500

dishes of this kind, for the making of which a manufactory was expressly built. Others had 800 silver dishes, of far more considerable weight. But silver alone was soon thought not costly enough, and gold was added, either in handles, or inlaid figures. At last they employed gold alone, and even made chamber utensils of that metal, till Tiberius prohibited this degradation, and directed that golden utensils should be confined to the service of the gods.

(To be continued.)

MANNERS AND CUSTOMS OF EUROPEANS.

So rich in anecdote, so fruitful in comparisons and consequences, is the history of European manners and customs, that we cannot refrain from presenting our readers with a few detached fragments that appear to be highly interesting and replete with entertainment.

Our ancestors, in ages far remote, lived entirely upon acorns, and such wild fruits as they found palatable to their unrefined tastes, and that were easily procured. Of bread, the healthy "staff of life," they knew nothing; for we indeed are indebted to the invading Romans for our acquaintance with its uses, who themselves, likewise, borrowed the invention from the Greeks. For grinding corn hand-mills were the only machines with which the Europeans, for a long while, were acquainted; and by some it is believed that until the return from the first crusade the art of constructing wind-mills was unknown to them; and that this, with many other inventions and improvements, they learned from the Saracens, and brought them home for the adoption, and the benefit, of their countrymen. At their feasts and entertainments a round slice of bread, for some centuries, was their only kind of plate; and with the French it obtained the appellation of *pain tranchoir*, whence our English word *trencher* seems to originate: at the finish of this repast these bread-plates, if we may so term them, the benevolent distributed among the poor. The method adopted by us, of mixing yeast with the ingredients of bread for the purpose of making it rise, seems to have been practised by the Gauls, as early even as the time of Pliny, the naturalist; but this practice became, in the seventeenth century, an object of violent contention between the faculty of medicine and the bakers; the former of whom esteemed it a very poisonous addition, while the latter as strenuously exerted their arguments, and their energies, to prove it perfectly innocuous; and even now in the present era opinions on this subject are still divided. Among the most inveterate adversaries to the mixture of yeast in bread, the name of Linguet stands conspicuous; and among the advocates and defenders of the system, Tissot is to be found.

As regards vegetables and fruits, we learn that the Romans introduced the brocoli plant into Europe, which by the Egyptians was held in so high an estimation, that they even worshipped it. The cauliflower was brought from the island of Cyprus. For the peach we have to thank the luxurious soil of Persia, where, however, the inhabitants avoid it as a destructive poison; an opinion they derive from the great coolness it possesses; we, on the contrary, had no sooner transplanted it into our temperate climate than the very first season raised it to the standard of one of the finest delicacies that could feed the palate of refinement. The plumb was also an im-

portation, but from the soil of Syria, whence it was brought into Europe by the memorable Crusaders; there is one kind which we call the *green-gage* that in several parts of Europe is still denominated *Reine Claude* out of compliment to the queen of Francis I., who bore that name, and who was particularly partial to it. There is another sort which is styled *Monsieur*, from its having become the favourite fruit of *Monsieur*, the brother of Louis XIV.

Among the dishes of animal food, salt-pork was formerly in high estimation with the rich and dainty: and rabbits were at one time in great demand, and considered to be one of the finest delicacies, particularly with the Spaniards. Geese also used formerly to be in great request; the Gauls were in the habit of driving extensive flocks of them across the fatiguing Alps to supply the markets of the Roman capital. Now, however, instead of these, numerous flocks of turkeys exercise the drover's care, but they extend not their peregrinations beyond the provinces of France, which they visit one after the other, and at stated seasons.

At the time of the Troubadours, the flesh of whales and dolphins became an article of food; then, however, those marine animals were tenants of the Mediterranean sea, where they were alone caught, to meet the exigence of the demand.

The Romans considered oysters so great a delicacy, that Ansonius sung their praises; but they quickly lost their character after the time of that poet; and till the seventeenth century they continued quite unnoticed, when however, they again grew into favour.

In regard to eggs, a rigid abstinence from them a long time prevailed; and it was with excessive difficulty that permission was obtained of the Catholic clergy that they might be eaten in lent; greater perhaps than the permission to use milk, butter, and cheese. From this circumstance originated the practice of consecrating a great number of them on Maundy-Thursday, which, after Easter, it was the custom to distribute among friends. Seventy years ago it was usual, at Versailles, to pile up lofty pyramids of such eggs, painted and gilt, which the French king on Easter Sunday, after the grand mass, presented to his courtiers.

The variety of cheeses with which the epicure is acquainted is astonishing, particularly those made in France. Among them all, however, the Parmesan stands conspicuous; it first appeared in France during the reign of Charles VIII; that prince while passing through Placenza, on his expedition against Naples, was presented, by the magistrates of the city, with cheeses, the prodigious size of which so surprised him, that he sent them as curiosities to the queen and the duke of Bourbon, who, deeming their flavour excellent, their reputation quickly was established.

(To be continued.)

HISTORICAL & BIOGRAPHICAL MEMORANDA FOR SEPTEMBER.

September 13th, in 1759, the celebrated General Wolfe was killed at the storming of Quebec, in North America. He was the son of Lieut.-General Edward Wolfe, who distinguished himself under the duke of Marlborough, and was born at Westerham in the county of Kent, on the 11th of January, 1726. There is no memoir extant of his juvenile years, though it is generally believed he was bred to the army. At the battle of La-feldt in Austrian Flanders, A.D. 1747. he distinguished himself and was then about

twenty years of age. From this period we find he was in the enjoyment of rapid promotion; for in 1748 he was Lieut.-Colonel of Kingsley's regiment, soon after the peace of Aix-la-Chapelle. In 1756, this treaty of peace being violated on the part of the French, in the settlements on the banks of the Ohio, in North America, war was again formally declared between the English and that nation. Mr. Pitt, afterwards the earl of Chatham, conducted this war, and raised colonel Wolfe to the rank of Brigadier-general, and sent him out under major-general Amherst. The first measure of that general was against Louisbourg, the capital of the island of Cape Breton. At this siege General Wolfe was the first who landed amid the strong and continued fire of the enemy from their batteries on the shore, and exhibited most uncommon intrepidity and the greatest activity; through his energies also, and his great manœuvres, the duration of the siege was much contracted, and Louisbourg surrendered to the English on the 27th of July, 1759. The great share General Wolfe had in this important conquest contributed to his advancement in the following year, when he was promoted to the rank of major-general, and appointed commander of an expedition against the town of Quebec. He proceeded up the river St. Lawrence with a force consisting of 8000 men, and was aided in the enterprise by a large squadron of ships from England. It was concerted that on his arrival at Quebec, he should receive succours from other English generals in that quarter; but by unforeseen circumstances he was deprived of such reinforcement, and compelled to undertake the siege at his own risk, and upon his own energies. The city of Quebec was well fortified and defended by a numerous garrison, and well stored with ammunition and provisions; Montcalm, the French general, had besides, posted his army in the neighbourhood all along the coast of the river in a very advantageous position, well securing his camp, where accessible, by deep intrenchments. At this stage of the siege, the renowned Wolfe from fatigue and disappointment in a rash attempt upon the enemy's trenches, was taken suddenly ill of a fever, which considerably impaired his health. However, upon his recovery of a little strength, and finding no assistance arrive from General Amherst, he completely changed the plan of his operations, and determined upon attacking the town on the other side. He, therefore, on the night of the 11th of September undertook the dangerous and bold attempt of gaining the heights of Abraham, which he effected with but one slight skirmish. Having landed his forces, and drawn them up in battle array, General Wolfe waited the coming of the French. They, knowing the town to be little defended on that side, and finding that there was no possibility of avoiding a general engagement, at nine in the morning of the 12th, advanced to the charge with great order and resolution. General Wolfe was in the front of his line, and during the fire of the enemy, received a wound on his wrist; undaunted at this injury, he wrapped a handkerchief round the wound, and continued giving his orders with his wonted self-possession; but scarcely had a short period elapsed, before another ball pierced the intrepid hero through the breast, and he fell to the ground. This unfortunate event occurred in the very arms of victory, for the French at that time had just given way, and were sounding the retreat. Our brave general was conveyed to the rear of the army, and upon his recovery from a fainting fit, and while in the agonies of death, he heard the shout of *They run! they run!*—with great emotion, he inquired "Who run?" and being told the French, he in a very low and faltering voice, cried, "Then I thank God I die contented!" Immediately after he expired; and his corpse was conveyed to his native country, where it arrived on the 17th of November. It was conducted to London, and then deposited in the family vault in the church at Greenwich, on the 20th. His Majesty, George II. ordered a monument to be erected to the memory of this great general, to which the Parliament consented; and in Westminster Abbey it is now to be seen amid others raised to those of equal and less glorious renown.

On this day, in 1793, the town of Toulon capitulated to Admiral Hood, who guaranteed to hold it for His Majesty, Louis XVII.

TO OUR READERS.

Our next Number will contain the History of Shropshire, with a Map; and an Account of Cowper's Residence, with an Engraving.

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PINNOCK'S
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No. CLXXXIV.]

SATURDAY, JULY 25, 1835.

PRICE
ONE PENNY



DEATH OF PRINCE WILLIAM, SON OF HENRY I.

HENRY I. taking advantage of the absence of his elder brother Robert from England, when Rufus was killed, prevailed on the people to make him king. This step, so detrimental to the interests of the duke of Normandy, was the source of great animosity and strife between the

two brothers, and led at last to the final subjugation of Normandy, and to the imprisonment of Duke Robert. This prince was weak and pusillanimous; and at the instance of many discontented English nobles attempted, with the most unfounded hopes of success, to gain possession

NOTE
OVER PAGES



of the English throne. The bold and ambitious Henry, aware of his projects, carried his arms into the very heart of Robert's dukedom, and forced from him an ignoble submission to his authority. Shortly after, Louis, king of France, proffered assistance to the duke of Normandy, who had likewise assistance offered him by a few other English earls, who had been exiled from the court of Henry: with this aid he attempted to revenge the insults

and arrogance of his brother. Henry passed over into Normandy with some newly levied forces, and began the campaign with the siege of Tinchebray. Not effecting his purpose, and the enemy wishing to decide the contest by a pitched battle, Henry drew up his forces for a general engagement; the issue of which was the total defeat of the Normans, and the capture of Robert, who was conveyed to Cardiff Castle in Glamorganshire, where he was

most cruelly treated, and kept in close confinement till his death, which relieved him from his wretchedness, after he had been a prisoner eight and twenty years.

Henry, on his return to England, passed many salutary laws for the better government of his people, and entered into a slight controversy with the clergy. Shortly after this, A.D. 1109, a treaty was entered into between Louis the Gross, of France, and the count of Anjou, for establishing William, son of Robert, in possession of his father's dominions. Henry attempted to arrest the young prince of Normandy, but failed; and alarmed at the support which the cause of his nephew had obtained, he set sail for Normandy, and prosecuted the war against his enemies with various success. At length, having overcome the Earl Belesme, the most zealous assertor of the rights of the young prince, the king of France and the count of Anjou made proposals for peace, which Henry agreed to, and immediately returned to England. In 1114, the king attempted to reduce the Welsh, who had for some time made frequent inroads upon the counties adjoining. That wary people eluded his vengeance, by repairing to their mountains, and compelled Henry to make peace. In the next year, in order to secure the succession of his son Prince William, the king went over to Normandy, and exacted from the states the oath of fealty to his son: the same precaution he adopted likewise in England, on his return home. A general assembly was convened at Salisbury, and all present acknowledged Prince William as the lawful successor to the crown of England, on the demise of his father, and took the oath of preserving their allegiance. From this assembly, some historians derive the origin of the commons sitting in parliament; alleging, that in compliance with the Norman custom, Henry summoned not only the lords spiritual and temporal, but also the commons; and that this was the first time those who represented the people were admitted to sit in the grand assembly of the nation.

Louis, king of France, ever ready to harass the English monarch, again excited the discontented to revolt against their sovereign, and once more invested the son of Robert with the duchy of Normandy, promising to assist him with his utmost power. Henry quickly marched against the rebels and their allies, and soon compelled them to retire, and made the king of France consent to the cession of Gisors, then in his hands. Scarcely had Henry left the continent, when Louis violated the treaty, surprised Gisors, and laid waste the adjacent country. Henry at this period being engaged in some important affairs at home, stifled his resentment a little while, and then assembled a formidable armament, and proceeded for the continent. His hopes of success were much heightened by the death of the earl of Flanders, and by the revolt from the enemy to his side, of the count of Anjou, whom he now secured to his interest by a considerable present, and by marrying his son, Prince William, to the count's daughter. Louis prepared his troops for a general engagement, and brought all his auxiliaries to his assistance. The two armies met, and a desperate and doubtful conflict ensued. The king nearly lost his life by the hand of a Frenchman, named Crispin, who twice wounded Henry through his helmet; but the king aimed at him a deadly blow, which laid him lifeless at his feet. Soon after this narrow escape, the enemy's line gave way, and the French, though much superior in number, were routed from the field. The pope at this time, A.D. 1119, residing in France, attempted a reconciliation between the monarchs.

His holiness came to Gisors, A.D. 1120; and after many mutual remonstrances, concluded a treaty between the contending powers by which the places taken, on both sides were restored, and the prisoners released without ransom.

Prince William, the son of Henry, paid homage to Louis for the dukedom of Normandy; but no provision being made for the young Norman prince, the son of Robert, the king of France continued to him his favour and protection. Henry having thus settled a firm peace on the continent, he prepared for his departure home; and accordingly embarked at Barfleur in Normandy, for England. The young prince William, indulging in the revelry of thoughtless and intemperate pleasures, delayed his departure; but finding his father had left some time previously, he ordered a vessel to be got ready immediately, that he might overtake him. He set sail in a new ship, the property of one Thomas Fitzstephen, who some years before had carried William the Conqueror across the channel, in his expedition against Harold. The prince had with him his sister, and great numbers of the Norman and English nobility; and in order to accelerate his speed, he prompted the sailors to exertion by a superabundant supply of spirituous liquors, and great promises on reaching England. The consequence of this extravagant liberality was unfitting the sailors for their duty, by the intoxication which their over-indulgence in drink had brought on them; and at length the ship with great force struck against a rock. All eager for their lives rushed at every thing that seemed secure, or sufficient to buoy them upon the water, and the young prince with much difficulty was placed in the long-boat. He had not left the wreck many minutes, when the distracting cries of his drowning sister rung upon his ears, and urged him to direct the sailors to row back to save her. Just as he had reached her, and was raising her into the boat, the rush of his sinking companions overturned them, and they all went to the bottom. This afflicting scene our artist has attempted to portray to our readers in the engraving at the head of this article, in which the young prince is shewn in the act of helping his sister into the boat. Thus did the heir-apparent of the English crown, his sister, and his entire retinue, perish. The only one who survived the catastrophe, was a butcher of Rouen, who was picked up in the morning by a fisherman. He relates, that the captain, Fitzstephen, clung to the mast all night; but on learning from him that the prince was drowned, he cried—"Then let me die too:" and he immediately dropped into the sea, and perished, A.D. 1120. The king entertained hopes for three days, that his son by some accident had put into a distant port: but when the certain intelligence was brought to him of the sad and melancholy circumstance, he fainted away; and by many historians it is recorded, that king Henry was never seen to laugh from that moment to the day of his death, which happened about fifteen years afterwards, in 1135.

THE AREOPAGUS.

ONE of the most extraordinary courts of justice that ever existed, was that called the Areopagus, at Athens, in Greece. This tribunal was so celebrated for justice and impartiality, that the fables of the ancients pretend that even their gods condescended to submit their disputes to its decision.

The Areopagus consisted of a great number of judges, (termed Areopagites,) who were always old men, and distinguished equally by their virtues and their wisdom: the actual number of these judges is, however, uncertain.

Their office was for life: the most important qualifications were required in them previous to election. A law made by Solon,* decreed not only that all who were admitted members of the Areopagus should previously have filled the office of Archon† for one year, but that their administration in that office should be rigidly investigated, and if it was found that they had been guilty of the smallest misconduct, they should be inadmissible; but, on the contrary, if their conduct was found to have been irreproachable, they were admitted members, with eulogium. Such respect was paid to the Areopagites, that none dared to laugh in their presence; and their reputation for equity was so great, that no one who had been either condemned or dismissed with an ungranted petition, presumed to complain that they had been unjustly treated.

The court of the Areopagus was situated in the town, on a rock or hill opposite to the citadel. The word signifies the rock of Mars, being compounded of *pagos*, (hill,) and *areios*, (belonging to Mars.)

The origin of this famous tribunal is lost in obscurity: but it is certain that Solon greatly improved it, and so enlarged its privileges and jurisdiction, that it became from his time the mainspring of the government.

The Areopagus anciently assembled in a hall built on the summit of a hill, which was difficult of ascent to the aged men who composed its tribunal. They, however, bore this inconvenience patiently, while their assemblies were confined to the three last days of each month; but when public affairs so multiplied as to require daily sittings of the Areopagus, its venerable members found themselves unable to bear so constant a fatigue. The tribunal was therefore removed to a part of the city called the Royal Portico, which was a square exposed to all the inclemencies of the weather. Here, then, they continued their arduous duties, which they discharged in the open air, and in the night time only, in order that their attention to public affairs might not be diverted by external objects, and that they might be influenced only by the arguments, and not by the presence and action, of the speakers; thus arose the saying, that none knew the persons or numbers of the Areopagites.

They assembled in profound silence; and when they had taken their places, they were enclosed by a cord drawn round them, which was their only barrier. A herald then enjoined silence, and ordered the people to

retire; after which, the assembly proceeded to business. As the Areopagites deemed the least preference of any kind to be flagrant injustice, they determined the order in which the causes should be heard by a kind of lottery; and the same chance which brought them up, distributed them to different numbers of judges, small or great, according to their respective importance.

Their decisions were invariably expressed by suffrages, which were collected in silence. They voted with a small flint, which they put into one of two urns which stood ready for the purpose. One of these urns was placed before the other; the first was the *urn of death*, made of brass, and termed *proper*; the second was the *urn of compassion*, made of wood, and termed *improper*. It was the office of the herald to take the two urns and present them, one after another, to every senator, at the same time calling upon him, in the name of the republic, to defer no longer his vote of acquittal or condemnation. When the *thirty tyrants* oppressed Athens, they obliged the Areopagites to bring their flints publicly, and lay them upon two tables placed before them, in order that their decisions might thus be known.

The original substance with which they voted were sea-shells, for which they afterwards substituted pieces of brass of the same form, termed *opondyla*.

The substances with which they voted were distinguished by their form and colour: those by which they condemned being black, and perforated in the middle; the others white, and not perforated. The perforation of the black ones was a very necessary precaution to enable them to distinguish them in the dark, when colours could not be perceived.

The Areopagites were permitted to multiply at pleasure the distinctions between signs, which essentially distinguished the fates of men. After the suffrages were collected, they were taken out of the two urns, and put into a third vase of brass, after which they were counted, and, as the number of perforated or smooth flints prevailed, one of the judges drew with his nail a short or a long line on a waxed tablet, whereon the result of each cause was marked; the short line expressed acquittal, the long one, condemnation.

The emoluments of the Areopagites, as well as of the advocates, were very moderate; and, contrary to the lamentable practice of our times, the length of a process did not enhance its expense. When the decision of a cause was postponed till the next day, the committee were only paid an *obolus** on that day. The salaries of the judges were equal, and paid out of the public treasury; they had three *oboli*† for each cause.

This tribunal was in the highest esteem among the Greeks; and even the Romans had so high an opinion of it, that they trusted many of their difficult causes to its decision. All pleadings before the judges were obliged to be expressed in the simplest terms, without exordium, epilogue, or any appeal to the passions; the eloquence of advocates being considered as a dangerous talent, and fit only to varnish crimes.

The jurisdiction of the Areopagus was originally confined to cases of murder, but Solon enabled them to take cognizance of crimes of every kind; so that the same tribunal which inflicted capital punishment on murder, poisoning,

* SOLON, one of the seven sages of Greece, was born at Athens about the thirty-fifth Olympiad* (rather more than 600 years B.C.) He early distinguished himself by the greatness of his courage and the splendour of his talents, which advantages raised him to the government of his country. He restrained luxury, abolished many superstitious ceremonies, and permitted those Athenians who had no children to leave their fortunes to whom they pleased. He made no laws against parricide, because he could not think human nature capable of the crime. He wrote a treatise of laws, of eloquence, of elegies, and of Iambic verse; and greatly improved the Areopagus. He died at the age of eighty, in voluntary exile, whither he had retired to avoid Pisistratus, tyrant of Athens.

† The ARCHONS were the chief magistrates of the ancient Greek republic. They were the principal officers, not only in civil but in sacred matters, and especially in the mysteries of Bacchus.

* An Olympiad was a space of four years, by which the Greeks reckoned time. The first Olympiad commenced 776 years B.C., in the year of the Julian period 3938, and twenty-two years before the building of the city of Rome.

* An ancient silver coin of Athens, the sixth part of a *drachma*; worth somewhat more than a penny-farthing sterling.

burning of houses, thefts, &c. struck at the root of those crimes, by arraigning *idleness, luxury, and debauchery*. Equally attentive to stimulate the indolence of the young, and the languor of the old, these sage judges roused in the one the laudable ambition to serve the state, and restored to the other their former activity. Satisfied that extremes produce the same effect, they thought the republic had as much to fear from the excess of wealth as from the gripe of poverty; hence they exacted a minute account of the effects of every individual, and hence their great severity to those idle citizens who, instead of being useful members in a state, are its bane and dishonour.

The Areopagus divided the city into quarters, and the country into cantons. Every thing passed occasionally under their eyes, and they were acquainted with the private conduct of every citizen. By them the rich were obliged to relieve the poor; corruption in magistrates was suppressed by the punishments denounced against it; and the old men, at the sight of the employments of the young, felt themselves animated with a degree of juvenile vigour and activity.*

Religion, also, was subject to the care of the Areopagites, who, being attached to the prevailing system, would suffer no opinions to be promulgated contrary to the received traditions. Thus Plato† never dared to divulge his private opinion concerning the Deity.

These venerable judges likewise controlled the erection of public edifices, the cleansing of the streets, the pay of the soldiers, and the distribution of the public money; in short, they had the direction of every thing which interested the republic; and the people themselves, notwithstanding their jealousy of their power, did nothing without the advice of the assembly, and suffered it, without complaint, to restrain their frequently precipitate measures.

Various decisions of this remarkable tribunal, which evince the purest justice, have been handed down to posterity. Among others, the following, related by Aulus Gellius‡ and Valerius Maximus,§ will serve to illustrate their equitable notions:—

* London Encyclopædia.

† An illustrious Athenian philosopher, born in the island of Egina, about 430 B.C. He was descended, paternally, from Codrus, the last king of Athens, and maternally, from the celebrated Solon. He was the disciple and friend of Socrates, and the teacher of Lycurgus, Demosthenes, Isocrates, and Aristotle. The character of this philosopher has always been high. Besides the advantages of a noble birth, he had a comprehensive understanding, a vast fund of wit and good taste, and great evenness and sweetness of temper, all which were cultivated and refined by education and travel; so that it is no wonder that he was honoured by his countrymen, esteemed by strangers, and adored by his scholars. The ancients thought more highly of him than of all their other philosophers, and they always styled him the DIVINE PLATO. But panegyric apart, he was certainly a very wonderful man, of a vast and noble mind, an exceedingly fertile imagination, and a most fluent and copious eloquence. His written works are extensive, and they have been transmitted, without material injury, to the present times. Plato lived a virtuous and temperate life, and enjoyed a tranquil death, which took place, from mere decay of nature, in the first year of the 108th Olympiad, (about 349 B.C.) when he was eighty-one years of age. He lived and died unmarried, and, consequently, without heirs; but he left his effects to his friend Adiantus. After his decease, statues and altars were erected to his memory; the day of his birth long continued to be celebrated as a festival by his followers; and his portrait is to this day preserved in gems.

‡ A celebrated grammarian, who lived in the second century, under Marcus Aurelius, and some succeeding emperors. He wrote a collection of observations on authors, and called it "Noctes Attica," because composed in the evenings of a winter which he spent at Athens. The chief value of it is for preserving many facts and monuments of antiquity not to be found elsewhere.

§ A Latin historian, sprang from the families of the Valerii and Fabii,

A woman was accused of having poisoned her husband and son. Being brought before Dolabella, the proconsul of Asia, she admitted the fact, and thus justified it: "I had," said she, "by my first husband, a son whom I tenderly loved, and whose virtues rendered him worthy of my affection. My second husband, and the son whom I bare to him, murdered my favourite child. I thought it would have been unjust to have suffered those two monsters of barbarity to live. If you think, Sir, that I have committed a crime, it is your province to punish it; I certainly shall never repent of it." Dolabella, being perplexed by this defence, sent the accused to the Athenian Areopagus; and that court, after many examinations and deliberations, ordered the accused and the accuser to appear before them again a hundred years after from the first day of the trial.

For about the space of 100 years after the time of Solon, the renowned Areopagus retained its deserved reputation; from that time, however, its decline may be dated. Gradually its powers and authority were diminished by successive intrigues; vice and corruption crept in among its members; and, as its equity and virtue decreased, its influence also was weakened. So much, indeed, had this famed Athenian senate degenerated in the days of Isocrates,* (340 years before the christian era,) that the comic poet, Demetrius, wrote a comedy, which he entitled "The Areopagite," and wherein he exposed the hypocrisy and corruptness of its degraded legislators.

The extinction of the famed Areopagus is wrapped in equal obscurity with its origin. Nothing certain is known of the period when its functions ceased. It existed in the second century of our era, but a writer who lived in the fifth century mentions it as then extinct.

Before this tribunal St. Paul was cited to give an account of his doctrine; upon which occasion he converted Dionysius, one of its members.†

SUPERSTITIOUS ERRORS.

At the present day, happily for us, the remaining superstitions are of a nature rather ridiculous than shocking. They are calculated rather to provoke a smile of mingled pity and contempt, than to blanch the cheek, or palsy the mind, with apprehension and horror.

But it was not always thus even in England and Ireland. In both these countries, thousands of useful lives

which made him take the name of Valerius Maximus. He studied polite literature, and afterwards followed Sextus Pompey to the wars. At his return, he composed an account of the actions and remarkable sayings of the Romans and other great men, and dedicated his work to the emperor Tiberius.

* ISOCRATES, one of the greatest orators of Greece, was born at Athens, 436 B.C. He was the son of Theodorus, who had enriched himself by making musical instruments, and who gave his son a liberal education. Isocrates was the disciple of Prodicus, Gorgias, and other great orators. He endeavoured, at first, to declaim in public, but without success; he therefore contented himself with instructing his scholars, and making private orations. He always evinced great love for his country; and being informed of the loss of the battle of Cheronea, he abstained four days from eating, and died, aged 98. Twenty-one of his discourses, or orations, which are excellent performances, are still extant. Isocrates principally excelled in the justness of his thoughts, and the elegance of his expressions.

† Acts xvii. 19, 34.

have been sacrificed between the crafty cruelty of men in power, and the extremely credulous ignorance of the lower orders. Nothing was so monstrous, as not to be asserted by those who thirsted for innocent blood; nothing so incredible or palpably false, as not to be greedily believed by the superstitious and half-barbarous rabble. To destroy an individual, it was only necessary to accuse him or her of holding correspondence with evil spirits, and professing an unhallowed intelligence; to be accused, was to be convicted. Conscious innocence was misinterpreted to be diabolical obstinacy; and natural horror, as being the unconquerable testimony of guilt.

Two instances of false accusation of this nature occur to us, and we relate them that our young readers may the more forcibly be impressed with a wholesome contempt for such mingled wickedness and credulity.

During the reign of our Edward II. the Irish were perfectly outrageous upon the subject of witchcraft. Persons of all ages and of both sexes were accused of wicked and supernatural correspondence; and many fell victims to a charge which would provoke our contempt by its own exceeding ridiculousness, did not its awful consequences excite the graver feeling of horror.

Among others who were accused of wielding the powers of sorcery for evil purposes, was an Irish lady—the Lady Alice Kettle.

This lady resided in the diocese of Ossory, and the bishop of that diocese summoned her to his court to answer to the charge.

Her accusers, alleged that she was in the nightly habit of meeting a spirit, to whom they gave the ludicrous name of Robin Artison. To this spirit, they averred that she used to sacrifice nine peacock's eyes and nine red cocks. Her motive to this diabolical worship, they stated to be the worldly aggrandizement of her son. To effect this, to cause him to abound in worldly wealth, they stated that at certain hours in every night she used to rake all the dirt and soil of the streets of the town of Kilkenny,—in which town both the lady and her son were resident,—towards the door of her son's house. While engaged in this delicate work, her accusers added, that she said or sung the following distich; which, whatever magical potency it may have possessed, is by no means remarkable for the perfection of its rhyme or rhythm—

"To the house of William, my son,
Hie all the wealth of Kilkenny town."

Though the Lady Alice seems to have been the person whose ruin was the most strongly designed, she was not accused singly. Two other persons, named Basil and Petronill, were charged with being her accomplices. On their first citation to the bishop's court, the accused, most probably that they might avoid being put to the torture, confessed the crime with which they were charged; and having done penance for it, were received again into the bosom of the church. But the malice of their accusers was by no means satisfied with this. Ere the penance had long been completed, and just as the lately accused began to recover from their terror, and to feel conscious of security, they were again cited to appear before the bishop on a charge of having relapsed into their unchristian errors. The Lady Alice soon perceived that nothing short of her absolute destruction would glut the malice of her enemies. Having consulted her friends, she prudently acted upon their counsel, and fled into England.

Her alleged accomplices were less prudent, or less fortunate. They appeared in person to answer to the charges made against them; and after a solemn mockery of a trial, they were found guilty. We have already said, that to be accused was almost certainly to be convicted. The two unfortunate persons in question soon found that to be convicted was certainly to be put to death. They were led to the fatal stake, and burned to death, protesting their innocence to a rabble which was rendered incredulous by ignorance; and imploring the mercy of those who imagined their tyrannous cruelty an act of equal piety and justice. The Lady Alice, by her retreat into England, saved her life from the fury of her enemies; but she could not, by the same means, protect her fair fame against their calumnious machinations. Their emissaries entered her residence, and ransacked every part of it. They then assured the deluded peasantry that they had found in the absent lady's chamber a staff, upon which, having anointed it with a magical preparation, she had been in the habit of riding through the air upon her unhallowed business. This, even this, was believed, though the slightest exertion of common sense would have been sufficient to make it evident that if she had supernatural powers, she would have effectually exerted them to conceal her guilt. Her staff, too, with its supernatural powers of locomotion, would obviously have been a most commodious means of transporting herself beyond the reach of what her enemies chose to call justice. But, unhappily, superstition never reasons: it is as deaf as an adder to all argument which militates against itself; and it requires nothing more than bare assertions in favour of that which it is predetermined to believe. This evidently malicious and false accusation was as implicitly believed by the whole peasant population of Ireland, as though it had been announced in Holy Writ. For years afterwards, every misfortune experienced by the poor and the illiterate was attributed to the potent malignity of Lady Alice; and even her less fortunate dependants, who had been unjustly put to death, were traduced with her. Their unquiet spirits were said to be perpetually appearing, and working mischief.

The other tale of superstition which we have to relate, must form the subject of another paper.

MAHOMETAN TRADITION CONCERNING ABRAHAM.

EVEN the Mahometans entertain a very great degree of regard for the memory of the patriarch Abraham; and though they are so deeply plunged in superstition, they do great honour to his faith in, and obedience to, God. One tradition which they have of him is so remarkable as to be well worthy of being related here.

They say, that Abraham having ventured to pray that God would *show* him how the dead should be raised, he was commanded to take four birds, and cut them into small pieces: he was then to lay the divided pieces upon the tops of four separate mountains. Having done this, which the Mahometans say he did so effectually as even to pound them in a mortar, Abraham was then commanded to call each bird by its proper name; and, as soon as he did so, all the parts of the birds' bodies were rejoined and reanimated, and they flew back to him: and then, say the Mahometans, was Abraham convinced of the practicability of a resurrection.

They have another tradition, to the effect that Satan, disguised in the form of a man, met the patriarch one day upon the sea-coast, and endeavoured to shake the belief which had been thus strengthened. Pointing to the putrefying remains of a corpse upon which birds and beasts of prey had been making havoc, Satan asked Abraham, how it could be, that a body of which so many different animals had carried away portions, could ever be made perfect again? To this specious question, Abraham promptly replied, that God, who had power to form our bodies out of nothing in the beginning, could by no means lack power to reanimate the scattered parts of them.

These traditions will serve to show the favourable opinion which the Turks and other Mahometans entertain of the character of the patriarch.

CHOCOLATE.

THOUGH *Tea* and *Coffee* are the most generally-used breakfasting materials, chocolate is a very important article of consumption; for it not only equals either of the above-named materials in flavour, but is, also, infinitely superior to them both in its nutritious qualities. For persons suffering from illness or debility, it is a most valuable restorative and nutriment; and many invalids have derived immense good from their use of it.

This useful and valuable article is made from the nuts of the cocoa tree,—a tree which, in appearance, bears some resemblance to our cherry tree, and which is very largely cultivated in South America and in the West Indies. The leaves of this tree are somewhat like those of the orange tree, and are remarkable for the great numbers in which they ornament each tree. The nuts are contained, to the number of twenty-five or thirty, in each bundle of the fruit which grows on this tree. Besides being thus enclosed, the nuts have each another covering, in the form of a thin and yellowish skin or husk. These nuts being pressed, and properly prepared, are afterwards made up into cakes, in the form in which we receive the chocolate. The nuts, in the process of being pressed, yield an oil which has very little scent or taste, but which is used in the manufacture of some oleaginous cosmetics.

Chocolate is now very generally, if not universally, known and used in Europe; but it was originally introduced there by the Spaniards, who necessarily were the earliest Europeans acquainted with it, as they were the first acquainted with South America itself.

MISCELLANIES.

DIORAMA.—We lately paid a visit to this admirable exhibition, which, this season, consists of two new dioramic pictures, by M. Bouton. The first that came under our observation was that depicting the Campo Vaccino at Rome, which is executed in a most masterly and effective style: while the other, the interior of the church of Santa Croce, at Florence, is beyond all praise. The lights are managed with perfect accuracy, and with wonderful design; indeed, the effect is unparalleled; and it truly merits extensive patronage and support.

AERIAL SHIP.—This novel vessel, constructed on the principles of aerostation, but propelled and guided by those of navigation, will attempt a voyage to Paris in the early part of next month; prior to which we would advise our readers, particularly the scientific, to pay a visit to the dock-yard of the "*European Aeronautical Society*," in the Victoria Road, a hundred yards on the

London side of Kensington; where they will have an opportunity of seeing its form, and the nature of its construction. The ship is named the "*Eagle*," and consists of two parts, a horizontal cylinder filled with gas, 160 feet long and 50 feet high, terminating at each end like the apex of a cone, to adapt it to cutting through the air; and a car, which is attached to it, made of light bars of wood, connected and secured with net-work. In this car, which is 75 feet long, is a kind of cabin, wherein is confined the machinery for condensing the atmospheric air, to supply the place of ballast, and which will lower or raise the vessel at pleasure: this contrivance is copied from nature, the model being the capability enjoyed by fishes of sinking or rising by the condensation of air within their bodies. To the car and to the sides of the cylinder are attached immense flappers or wings, constructed of cane and varnished cotton, which are managed by machinery in the car, and in such a manner as to gather as much wind as may be required; one of these wings is secured to the tail of the car, where it serves the office of a rudder. The cylindrical balloon is made of varnished cotton, and the car is secured to it by ropes. It is intended to carry 17 individuals, and to reach Paris six hours after it is launched; but the speculators have no intention of travelling against a strong wind, nor of being much higher than 300 feet from the ground. They will doubtlessly regulate their departure by the direction of the wind; and should the breeze change while on their course, and with a force greater than can be overcome, they must either drop down again or be blown back. The projector, or rather reviver, of this aeronautical communication between countries, is Count Lennox, who from some cause unknown to us failed in a similar attempt last year at Paris.

RELIGION.

THE pious and talented Dr. Isaac Watts very beautifully and very truly says—

"To man, in this his trial state,
The privilege is given,
When tossed by tides of human fate,
To anchor fast on heaven."

It is indeed most true that, in the most perplexing difficulties, the most agonizing sufferings, and the most imminent peril, we have, in religion, an all-sufficient solace and support.

Though the chief advantage which we derive from revealed religion is undoubtedly the knowledge which it affords us of the corrupt state of our nature, the infinite power and goodness of our Creator, and the infallible and only means of avoiding his displeasure, and securing his approbation, yet this is by no means the only one. It is from the great manual of our religion, the Bible, that we derive all that we know, with any considerable degree of certainty, of the earliest ages of the world; and but for the light thus afforded us by religion, some of the most delightful and useful stores of profane learning would be so unintelligible and unfathomable as to be destitute alike of usefulness and of beauty. Moreover, religion not only throws a light upon profane learning, but it also disposes our hearts and minds for profitably pursuing and attaining it; for the qualities of mind which are enjoined by religion are as essential to intellectual eminence as to moral perfection. To be modest, industrious, temperate, and unprejudiced, are so essential to the improvement of the intellect, that the strongest natural mind, unruled by these, will never arrive at any very great height of excellence. And where, so well as in Scripture, are modesty, industry, temperance, and impartiality, inculcated and enforced? To what profane writer can we refer whose directions are at once so sublime and so intelligible, or whose warnings are so solemn, and whose consolations

are so effectively soothing, as are those of the inspired penmen? Every branch of science and of learning is to be advanced by a profound study of holy writ; yet its essentials are laid down so clearly, and with such beautiful simplicity, that the most trivial amount of scholastic attainment suffices for comprehending and profiting by them. Profound science, and an extensive acquaintance with the tongues of foreign lands, and other times, can draw assistance and improvement from the book of life; but to read it to its chief end, namely, virtue here and happiness hereafter, the mere power of reading our vernacular tongue, and a humble frame of mind, alone are requisite. The peasant is in this respect as happy as the wealthiest and greatest noble in the land; the wealth of this world he cannot attain, but he can contemplate the riches of the world to come; and he can at once rely upon the truths of the gospel for future happiness, and derive from them patience under privations and sufferings, and consolation amidst the most terrible calamities.

That religious disputes have more than once deluged the world with blood, is no reproach to religion itself, nor any fair ground for detracting from its transcendent merits. What are, improperly enough, called religious wars, have taken their origin not in the precepts of Christ, but from the evil passions of those who, though they called themselves Christians, neglected to imbue their hearts and minds with christian feelings and christian motives. Where Christianity is any thing more than a name, where its denunciations are truly held in awe, and its gracious promises truly relied upon and valued, the heart and the mind of those who are thus Christians are invariably improved; genius rises to sublimity, and goodness to excellence. Every day that our young readers live, will, if it be properly employed, impress them more and more strongly with the fact that, in our studies, our pursuits, our hopes, fears, sufferings, and pleasures; in every thing that we do, or think, or say, our best adviser, and our most powerful friend, is *religion*.

Literary Review.

70. *Scandinavian Sketches, or a Tour in Norway.* By LIEUT. BRETON, R.N. Author of "*Excursions in New South Wales*," &c. 8vo. Pp. 354. London: Bohu.

WE have been much pleased with the remarks and realities which Lieutenant Breton has so invitingly given us in these Sketches of the North. Indeed, we were very loth to leave the volume; but as there were others that demanded our attention, we made entertainment surrender to duty. Many extracts could be given for the amusement of our readers; but as our limits confine us, we must rest satisfied with these following.

From the coast between Christiansund and Sweden, the number of lobsters exported amounts in some years to 600,000. About 200,000 more are procured from Sweden itself, making a total of 800,000 sent to England alone. To convey, however, a fair idea of the quantity sold on some occasions, it may be mentioned, that from the end of May, to the early part of July, 1816, Mr. Saunders, a fishmonger, sold 120,000 per week, at 12s. per 1000; by which a weekly loss was incurred, of 12,000*l*.! The value, at present, varies from 16*l*. to 40*l*. per 1000*l*.; and when I state, that if, in May, 2,000 lobsters arrive in London on Monday, they will sell for 89*l*., and that if 10,000 should be brought into the market on the following day, they will sell for only 160*l*., the uncertainty of this kind of speculation may easily be conceived.

We will conclude with the author's sketch of the Norwegian character.

Much of the simplicity, for which they once were noted, has departed, and in particular districts, they know as well how to impose upon the stranger, as their brethren of the Swiss Alps. So addicted are these people to drinking, that one is almost led to wonder spontaneous combustion does not occur among them; and I have witnessed dram after dram poured down their throats with a celerity absolutely surprising; even boys of twelve or fourteen years of age taking glasses of brandy that would have astonished an English coalman. This is distilled from barley, wheat, or potatoes, and also from the two last united, carraway or aniseed being afterwards added to flavour it, and is sometimes of so fiery a nature, that a person unaccustomed to a powerful spirit, would experience some difficulty in swallowing a spoonful. The price is from three to four pence per bottle, and every one seemed at liberty to make as much as he pleased. Constant use of that spirit enables the people to drink

a large quantity with impunity; and a man at Kongsvingor confessed to having drunk three bottles of it within twenty-four hours; the half of that quantity he frequently drank within the same time. It must be admitted, that the example set them by the higher orders, tends materially to increase the evil: not that I mean to imply the slightest inclination on their part to intoxication, but, taking as they do, a glass of brandy several times a day, perhaps as a corrective for the liquid fat, of which so much is used at their meals, as in Germany and Russia, &c.; we need not be astonished at the lower classes following their example, and becoming at length professed tipplers. . . . No person, who has seen much of Norwegian peasantry, can deny that a large proportion are a dirty race, especially the boatmen; with these last, I went in various boats upwards of 350 miles, and have no hesitation in pronouncing for the greater number, for there were exceptions, a race devoid of common decency, with habits so bestial, that, in more than one instance, they destroyed whatever gratification I might otherwise have derived from the surrounding scenery. . . . Of the women.—In their personal habits, they are often most disgusting; as in addition to their being equally filthy in their persons with the Cinderellas of our London lodging-houses, they are covered with vermin, and dirty in every thing connected with the *menage*. . . . Of course, I do not include the wives and daughters of the better class of farmers in this unfavourable picture; though even they afforded instances, also, of inattention to cleanliness.

71. *The Educational Magazine, and Journal of Public Utility*, &c. 8vo. Monthly. No. VII. London: Simpkin, Marshall, and Co. Dublin: Curry and Co. Edinburgh: Oliphant.

THE object of this publication is a very valuable one; and most unquestionably the attempt, if not already, will be eventually, appreciated. The papers entirely refer to the subject of education, many of which are important, and ought universally to be read. In one instance we find education theoretically handled, in another, practically elucidated. Here are the principles of teaching thoroughly laid open throughout its intellectual, moral, and physical relations. Notwithstanding all this, which is good and laudable, yet, now and then, there are opinions, and principles, and doctrines advanced, which to many will be

found highly objectionable; and which will demand the attention and the scrutiny of a liberal mind to render them in any way palatable or even passable. However, upon the whole, the work merits encouragement, particularly by those who have the least interest, professionally or otherwise, in the education of the infant or youthful mind, of which class there are by no means a few.

72. *A Scripture Geography, for the use of Young Persons.* By the Rev. SAMUEL WOOD, B.A. 12mo. Pp. 98. Sewed. London: Laurie.

THIS is an excellent and concise compendium of geographical information, relative to the various countries spoken of in the Old and New Testament, and may be relied on as of some authority; we would have wished it to have gone farther into the subject, as it seems to have been prepared with much labour and accuracy. To add to its usefulness, four maps, plain or coloured, have been engraved for the work, which are to be had separate.

73. *The Art of Drawing, adapted to the Capacity of Children.* By T. ROUSE, Drawing Master. 4to. Sewed, Plates. London: Wilson.

OF excellent intention, but too brief and concise to be of any practical utility.

NOTICES TO CORRESPONDENTS.

To an "Occasional Reader," we reply, "Oxford."
"Alpha" shall be attended to.
"E. D." shall not be disappointed.
We answer "ZHNYA" with his own motto—
"De mortuis nil nisi—bonum."

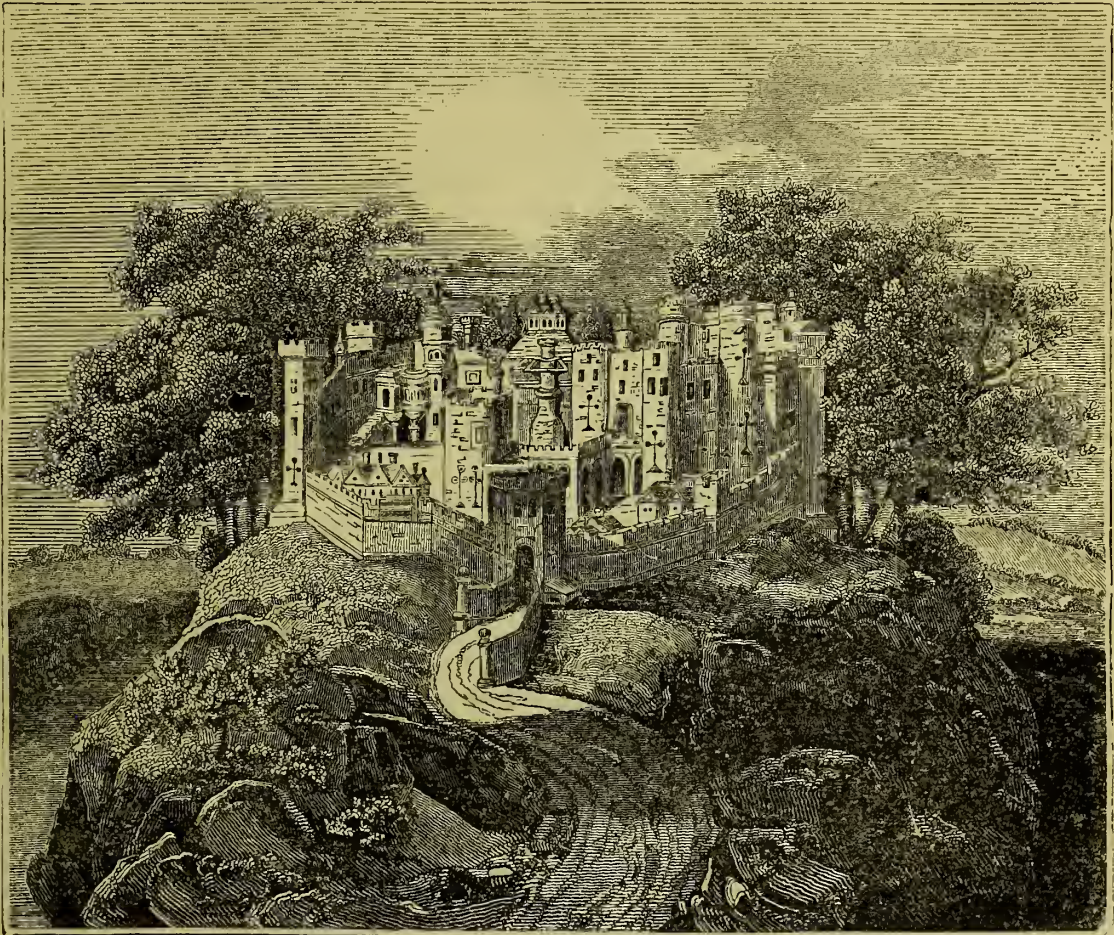
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SANDAL CASTLE, YORKSHIRE.

THERE is, perhaps, no period of English history so replete with melancholy occurrences, so full of distressing incidents, as that of the wars between the white and red roses—the houses of York and Lancaster. In that terrible and long continued contest, not only were many noble families totally ruined and some of their most valuable branches cut off, but a spirit of hatred and rancour was generated amongst those who ought to have lived on terms of affection; father being exasperated against son, and son against father, and the nearest ties of relationship severed by political prejudices.

Few places in England are more calculated to revive recollections of this distressing period than Sandal Castle, near Wakefield, in Yorkshire, which witnessed the death of its owner, princely York, attended with circumstances of barbarous cruelty and disgraceful indignity; for—

“ Here York himself before his castle gate,
Mangled with wounds, on his own earth lay dead;
Upon whose body Clifford down him sate,
Stabbing the corpse, and cutting off the head,

Crown'd it with paper, and to wreake his teene,
Presents it so to his victorious queene.”—DRAYTON.

A few of the particulars which led to, and followed this sad catastrophe, may not be uninteresting, and may serve to show how dangerous it is to the prosperity and happiness of a kingdom, to turn aside the succession to the throne, unless from the most urgent necessity; as it is too sure to involve the nation, some time or other, in the horrors of civil war.

When Richard II. by his mal-administration, had occasioned the rebellion of the duke of Lancaster, and by his pusillanimous conduct on that occasion, had induced him to seize the crown, the succession was changed from the right line to the descendant of a younger branch of the family of Edward III., John of Gaunt. Henry IV. was sensible of the defect in his title, but maintained his usurpation by force of arms. His son, Henry V., was a brave warrior, and, during the short time he reigned, he kept the turbulent spirits that might have disputed his title too

much employed in France, to afford them an opportunity of giving him any disturbance.

But the feeble government of Henry VI., disgraced as it was by the loss of France, and torn by domestic faction, afforded a fair opportunity for a descendant of the elder branch to assert his claim.

Accordingly, Richard, duke of York, descended from Lionel, duke of Clarence, second son of Edward III., whose title was therefore preferable to that of Henry, took up arms, and at length so far prevailed, as to be named protector of the realm, and heir to the throne.

Unhappily for the peace of England, Henry's queen, Margaret of Anjou, was of quite a different disposition from her husband; high-spirited and ambitious, she was fired with indignation at seeing her son's claim to the succession ceded to another. She, therefore, determined to resist this surrender, and, accordingly, hastened into the north, and assembled an army of eighteen thousand men.

The duke of York shut himself up in Sandal Castle with a force not exceeding five thousand men, intending to wait for the reinforcements he expected under his son Edward, earl of March. But the queen, whose interest

it was to provoke him to leave his strong hold, used every stratagem in her power for that purpose. She concealed part of her troops in ambush, and advancing to the gates with the rest, taunted the duke with cowardice for thus suffering himself to be shut up by a woman.

Stung to the quick by these taunts, and deceived as to the number of the queen's army, the duke of York forgot his usual prudence, and, abandoning the fortress, drew up his little troop on Wakefield Green. Here he was instantly assaulted by the queen's forces in front; and while bravely engaged in repelling this attack, his rear was assailed by those who lay in ambush. Overpowered by numbers, he died valiantly fighting sword in hand, while his second son, the earl of Rutland, only twelve years of age, falling into the hands of Lord Clifford, was by him inhumanly murdered. The same ferocious nobleman cut off the head of the duke, and, in derision, placing on it a paper crown, brought it to the queen, who ordered it to be placed on the walls of York.

This sanguinary battle, which cost the lives of many persons of distinction, and more than half the soldiers of the duke's army, was fought Dec. 31, 1460, and was called "the battle of Wakefield Green."

But the rejoicings of the queen and her party were premature. Though one duke of York was slain, another sprung from his ashes in the person of his son Edward, and in less than four months from that event, the crown was transferred from the head of Henry to that of Edward, by the battle of Towton, which took place March 29, 1461. It is true that the event of this battle did not put an end to the contest; but though fortune seemed to waver for a time, Edward finally triumphed, and peaceably enjoyed the regal dignity.

Sandal Castle was built in the reign of Edward II., by John Plantagenet, earl of Warren, who for some time made it his residence, as well as an asylum for the lady of the unfortunate Thomas of Lancaster. In the reign of Edward III., Edward Baliol took up his abode here, while his friends were raising an army to establish him on the throne of Scotland; and the castle subsequently became the property of Richard Plantagenet, duke of York, whose fate we have recorded above. Richard III. is also said to have lived here; and, in the time of Charles I., it was garrisoned by his adherents; who, however, were forced to surrender to Col. Overton, after a short siege. This happened in 1645, and soon after the fortress was demolished by order of parliament, during the Commonwealth.

The remains of Sandal Castle, now the property of the duke of Leeds, are, at present, scarcely visible, not a wall remaining, merely a mound or two; and it is probable that soon no vestige of so memorable a fortress will exist. As it stood in the height of its importance, our artist has attempted to represent it to our readers in the Engraving at the head of this article.

CRICKET.

For the use and amusement of our more juvenile readers, we are induced, at this season of the year, to give them a few particulars and rules relative to the manly, healthy, and truly English game of CRICKET. It is usually played by two opposing parties, of eleven persons on each side, though a greater or less number can play it.

Two umpires are appointed in order to settle any disputes which may arise. They should be well acquainted with the laws of the game, and watchfully attentive to the play. One umpire should be somewhat behind the striker's wicket, so as not to impede the player, and the other directly behind the bowler's wicket, to see if the ball be fairly delivered and unimpeded by the striker's leg.

The height of the *bat* should not exceed twenty-one inches in the *pod*, nor should it be more than four inches and a quarter in the widest part.

The *ball* should weigh from four and a half to five ounces.

The *wickets* are each composed of three stumps, which should be sufficiently long to leave, when firmly fixed, two feet above ground, and a bail, seven inches in length, to fit the tops of the stumps. The wickets should be placed exactly opposite to each other. The distance between them for men, is usually two and twenty yards; but that distance, as well as the size of the bat and wicket, and the weight of the ball, must be decreased according to the size of the young players.

The *bowling-crease* must be in a line with the wicket, and have a return crease; and the *popping crease* must be three or four feet from the wicket, and exactly parallel with it.

The *batsman* should be ready to run the instant that the ball is delivered towards his partner's wicket; but he must take care not to leave his ground until it is delivered, or the bowler will put down his wicket, and he will be out; and he must not run too far without the certainty of a run being obtained, lest he should not be able to return quickly enough to save his wicket. The striker, when running, should keep his bat on the outside of his partner, and be careful not to run against him.

The business of the *bowler* is very important, and requires great steadiness as well as skill; levity, or want of skill on his part, frequently losing the game for his side. His bowling should not be too uniform, but varied to meet the peculiar play of each striker; and he and his partner at the opposite wicket should mutually advise by signs as to the sort of balls most likely to be fatal to the wickets of the respective players.

The business of the *wicket-keeper* is to strike down the wicket if the player remove from his ground; this is called *stumping out*.

The *first short slip* should stand within two feet of the wicket-keeper, whose place he must take should the latter go from the wicket after the ball. No player, however, ought to take the ball before the wicket-keeper, if it be coming straight to him.

The *point* should stand in the *popping-crease*, about twenty-one feet from the striker. When backing up, he should take care not to impede the slip.

The situation of the *middle wicket off*, which is important, and should be well kept, is near the bowler's wicket, on the *off*, or right-hand side. If the bowler leave the wicket, he must take his place during his absence.

Leg or hip should stand a little behind the straight line of the *popping-crease*.

Long stop should stand at a proper distance behind the wicket to prevent a run, should the ball pass both striker and wicket-keeper. He should be adroit in stopping the ball, however swiftly bowled, and attentive in backing up. He should be good, too, at throwing in, as he has to look to those balls which are tipped, as well as to those which are bowled past the wicket-keeper.

The *long slip* should cover the short slip, which he will do by standing about the same distance from the wicket as the long stop, in a line with the striker, and between the point and the short slip.

To cover the *point* and *middle wicket*, the player must stand on the *off* side, so that if the ball be struck pass the point and middle wicket-man, he may be prepared to stop it.

The *long field off-side* takes his station on the *off-side*, between the middle wicket-man and the bowler, but farther a-field, to be ready for their missed balls. He should be able to throw well.

Long field on-side stands wide of the bowler's wicket to prevent a second run.

If there be more players, they may be placed according to the bowler's discretion.

LAWS OF THE GAME.

The bowler, when delivering the ball, must have one foot behind the *bowling-crease*, and within the return crease; if he have not, the umpire will call "no ball." If that ball should strike down a wicket, its player is not out for it; and if, on the other hand, the striker run a notch, the umpire will not allow it to be counted. Four

balls must be bowled before the wickets be changed, which must be done but once in the same innings. If the bowler deliver the ball above the striker's head, or out of the bounds of the bowling crease, a notch shall be put down to the "byes" of the party which is in, and that ball shall not go for one of the four. When the umpire says "in ball," the batsman may strike it and get all the runs he can. If the bowler's arm be extended in a straight line, or if he deliver the ball with his knuckles uppermost, the umpire will declare it "no ball." The batsman is out when the ball is knocked off the stumps, when a stump is bowled out of the ground, or when the ball having been struck over or under by his bat or his hands, be caught before it touches the ground. We must remark here that it has been decided that the batsman is not out if a ball be caught which has been struck by his wrist; and, on the other hand, if a player in catching a ball even press it to his body, his doing so is perfectly fair on the catcher. The umpire at the bowler's wicket is to be first applied to to decide. The batsman is also out if, while the ball is in play, both his feet are over the popping-crease and his wicket put down, unless his bat is on the ground within it; if he hits down his own wicket; if he prevents a ball from being caught; if he wilfully strikes the ball a second time; or if, when he is attempting to run a notch, his wicket is put down, no matter whether by a throw or ball in hand, before he grounds his foot, hand, or bat, within the popping-crease. He is likewise out, if he stops, with his leg or foot, a ball which has been bowled in a straight line to his wicket; or, unless requested by the opposite party, takes up or removes the ball while in play. If the umpire proclaim "a lost ball," the striker shall be allowed four notches. If, when a wicket is put down, the batsmen have crossed each other, he who is running for the wicket which is put down, shall be out; but if they have not crossed, he who has left it shall be out. No notch is allowed for the ball on which the batsman is caught, or run out.

While the ball is kept in the bowler's or wicket-keeper's hand, it is considered no longer in play, and the batsmen are not bound to keep their grounds until the umpire has called "play." If the batsman be hurt by the ball, or otherwise, during the play, he may leave the wicket, yet continue his innings; another person being permitted to stand out, but not to go in for him. If any player intentionally stop the ball with his bat, it shall be considered dead, and the opposite party shall score five notches.

When the ball is struck up, the batsman may guard his wicket either with his bat or his hands. If the striker send the ball against the wicket of his partner when he is off the ground, he is not out, unless the ball has previously been touched by the hand of one of the opposite party.

Two minutes are allowed to each man to go in; and fifteen minutes between each party's innings. If, in the latter case, either party refuse to play when the umpire calls "play," that party loses the match.

SINGLE WICKET

is not near so interesting as double wicket; and though it may be played by almost any number of persons, it is seldom played by more than four or six.

Almost the only variation in the business of the bowler and batsman in the two games, is, that the batsman has to run to the bowler's wicket, knock the ball off the stumps, there, and return to his own wicket. The distance

between the wickets being exactly the same as at double wicket; the player has double the distance to run. It would, we think, be an improvement, if there were a crease mid-way between the wickets, to which, instead of to the bowler's wicket, should be the run. The game would be far more interesting and lively, and would be more fair towards the batsman.

THE DOG DAYS.

WE have more than once already had occasion to observe, that though the greater and more terrible superstitions which formerly scourged and desolated mankind, have happily been banished from among us, there are still but too many foolish superstitions prevalent. Effects which are clearly enough traceable to rational causes are attributed, by the voice of credulity, to causes which either do not exist at all, or, at least, have no kind of influence in producing those effects.

Among these minor superstitions, that one which attributes a variety of evils to the influence and agency of the Dog-star, is one of the most entirely unreasonable and ill founded.

From about the third day of July, until the eleventh day of the following month, the Dog-star is hidden from our view, being lost in the superior splendour of the rays of the sun. Yet though this very circumstance ought to be amply sufficient to prevent us from ascribing certain evil effects to the Dog-star, superstition is too regardless of common sense and right ratiocination to take notice of any thing which militates against that which it is determined to believe itself, or to force upon the belief of others.

To this occultation of the Dog-star in the sun's rays, which did not take place this year until after the third of July, popular belief ascribes sundry injurious and unpleasant circumstances, which occur in the greatest number before that time. It is not true that excessive heat, so excessive as to dry up rivulets, turn fermented liquors acid, and drive dogs and other animals mad, is attributable to this occultation of the Dog-star. With this fact before our eyes, it really is very foolish, and almost criminal, to attribute ominousness and causation of evil to the Dog-star, when the evils attributed to it are clearly traceable to an excessive heat, with which it has no connexion, and upon which it has no influence, direct or indirect.

Many of the evils supposed to be common to what are called the Dog-days are the inevitable consequence of the intense heat of the season; but still more of them are the result of our own imprudence. Fruits of various kinds abound in the hot weather. These being eaten greedily, and to excess, cause fevers and other illnesses, which the heat of the weather renders contagious. But of all the evils of hot weather, whether inevitable, or superinduced by our own imprudence, the Dog-star is, as we trust we have satisfactorily proved, wholly innocent.

We hope that superstitions, such as that which we have just noticed, are fast falling into contempt, even among the vulgar. But at all events, those who have the benefits of education are unpardonable if such follies make even a momentary impression upon their minds; for a moment's reflection is amply sufficient to show them to be follies, and follies which have not a single atom of foundation.

ON THE LATIN LANGUAGE.

WERE this language no otherwise important to us than as being the source whence we have derived a very great number of our words, its importance would be considerable. But it is also the vernacular language of some of the most gifted orators, philosophers, and poets, by whom the world has been delighted, instructed, and improved. Nor does its importance end here; for on the revival of literature from the darkness and disuse to which the northern barbarians for a long time consigned it, the Latin was to scholars, what the French now is to travellers and courtiers—the universal medium of communication. To be ignorant, then, of this language, is to be blind to many of the beauties of our native writers, both of our own and earlier times, who, in common with ourselves, owed some of their most expressive and harmonious words to it,—to be but partially acquainted with our own language,—and to be unable to partake of the intellectual banquet spread for our enjoyment by Cicero, Cæsar, Virgil, Horace, and a whole host of scarcely less gifted geniuses. In acquiring a knowledge of Latin, we are doing much towards increasing our knowledge of, and mastery over, our vernacular tongue, and we are rendering the acquisition of the French, Spanish, and Italian, a matter of almost inconceivable facility. We need, surely, say no more in recommendation of this language; indeed, its value is, happily, so well known in this country, that parents and tutors, to whom alone recommendation would be necessary, were it so to any one, require no very lengthened address upon that head.

The Latin language was originally formed from the ancient Greek, and chiefly from the Eölic and Doric dialects; and as those dialects, at the early period when they were carried into Italy, were far short of their subsequent polish and perfection, the Romans borrowed from the Etruscans and Sabines for their improvement, as we afterwards did from the Romans and Greeks. That this is the true origin of the language of Cicero and Virgil, is evident, not only from the fact of innumerable words of the Latin being clearly traceable to their Grecian source, but also from the ancient form of the Roman letters, being, with some few exceptions, of the same shape as those of the more ancient Greeks. Not only the language of Rome, but the use of it, was principally derived from Greece; the orators, philosophers, and poets, of the former country, studiously imitating those of the latter. Cato the elder, when a very old man, acquired the elements of Greek; and Cicero did not consider that he had perfected his scholastic education, until he had travelled and sojourned in the land of Homer, Anacreon, and Sappho.

The Latin is an exceedingly manly and expressive language; but, like our own, it has its defects as well as its beauties. It is less euphonious, and less copious, than the Greek; and, when we consider that its chief words were derived from the latter language, it is a little remarkable that it is defective in having no dual number. This defect, and that of its not having the article, while they are astonishing, considering that the Greek is free from both defects, are somewhat injurious, as they give rise to very much ambiguity. For instance, *Homines* may mean *men* in general, or *two men* in particular; and *Hominis Filius* may mean *the son of a man*, *a son of the man*, or, *the son of the man*; and it is only by an attentive, and sometimes troublesome perusal and reperusal of the context, that this difficulty is got over by a foreigner who is

learning the Latin. The Greek, and all the modern languages, are, in this respect, greatly superior to the Latin, for the use of the article completely obviates all ambiguity of this description.

The Latin, also, is greatly inferior to the Greek; and in estimating the former, its defects are aggravated when, ever the latter possesses some excellence precisely opposed to it, on account of the Latin being derived from the latter;—as, it has only one tense for the past perfect, it has no active past participle, and no passive present participle. These defects are all of them serious ones to writers; and they are the more vexatious because the Greek is free from every one of them. Notwithstanding its defects, however, the Latin language is a noble, an expressive, a sonorous, and an harmonious one; and it has, at various periods, and in various stages, given to the world some of the most delightful and instructive works. As Latin can now only be learned from books, it is of great consequence to be aware that it has had different degrees of purity, and to be able, consequently, to distinguish between classical and barbarous Latin. This is more especially important in learning to write Latin, an accomplishment which is valuable to all persons, and even indispensably necessary to some; we shall, therefore, briefly sketch its history as to purity.

Like all other languages, the Latin arrived gradually, and after a very considerable period, at perfection. Terence, in his comedies, is considered to be the earliest writer who wrote Latin in its greatest purity, and he died one hundred and fifty-nine years before Christ, or nearly six centuries after the founding of the Imperial capital. Lucretius, Virgil, Cicero, Cornelius Nepos, Cæsar, Horace, Ovid, Catullus, and a whole multitude of other authors, from that period wrote the language pure, beautiful, and undefiled; and the first who departed from the pure language of the age of Terence, was Sallust. Though he lived somewhat less than a century and a half after Terence, and was contemporary with Cicero and Cæsar, he composed his history of Catiline's conspiracy in Latin very far inferior to theirs. Concise even to obscurity in his style, and making choice of obsolete phraseology, he laid the foundation of the decline of the Latin language. His acknowledged powers as an historian only render his error, in this respect, the more unpardonable. Affectation of style, and impropriety of phraseology, in a less talented writer, would have served only to expose him to ridicule; but Sallust, while he charmed by his talents, unhappily caused the majority of his readers to mistake his defects for beauties, and led innumerable writers to copy, with debasing fidelity, his only fault, in the vain idea that in so doing they approached that excellence, in other respects, of which they were wholly destitute. After the Augustan age, the decline of Latin, which began with Sallust, became more palpably and alarmingly evident in Pliny, Lucan, and especially in Tacitus, the last of whom was so studiously brief that he became frequently unintelligible. Even the beautiful moralist, Seneca, gave way to the rising mania by the use of pompous ornament, and an antithetical and epigrammatical smartness, which was as unbecoming the dignity of his subjects, as it was derogatory to the majesty and stately grace of the language in which he wrote. The evil at length rose to such a pitch, that Quintilian, an admirable grammarian, who lived in the reign of Domitian, wrote a system of oratory, entitled *Institutiones Oratoricæ*, for the express purpose of putting a stop to it. But

the time when even the beautiful precepts, and still more beautiful example of Quintilian, could be of any considerable avail, had gone by. From Sallust to Quintilian, a period of above a century had elapsed; for though we do not know the exact time when the latter wrote his *Institutiones*, yet as we know that he died A. D. 95, and that he did not write them till after he had been twenty years a salaried teacher at Rome,* and as we are aware that Sallust died thirty-five years before the birth of our Saviour, it is clear that the Latin language had been gradually declining full as long as we have stated. But the affectation of native writers was not the only, though it was, without doubt, the chief cause of the lamentable deterioration of the Latin language. After the time of the Emperor Augustus, the multitudes of strangers who resorted to Rome assisted probably in its corruption, by intermixing their barbarous and uncouth sounds with the purer phraseology of the imperial city. The Greek language, too, was then as fashionable among the Romans, as French at the present time; and while affectation caused many to intermingle Greek in their speech and writings with Latin, the ignorance of others caused them to mix the provincialisms of Lombard and Apulia, and the barbarisms of the Huns, Alans, and Goths, with both of them. What these various causes could only in part accomplish, was perfected by Constantine, when he removed the seat of the empire to Constantinople; from that time the language of the court and the fashionable became Greek, to the utter exclusion of the Latin; and the latter language, thus abandoned to the vulgar and the ignorant, became every day more and more corrupted and debased; its nervousness was exchanged for empty sound, and its terse expressiveness for maudlin and false refinement.

On reviewing what has been said upon this subject, the Latin language, like mankind, may be said to have had four distinct ages. It was in its infancy during the reign of those early chieftains, Janus and Saturn, to whom the superstition or policy of later rulers assigned the rank of gods; it was in its childhood from the founding of Rome by Romulus, until the appearance of Terence, nearly two centuries before the birth of Christ; its manhood lasted from Terence to Sallust, who gave the first indications of its approaching corruption; and its feeble and perpetually declining old age lasted from Sallust to the establishment of the lower empire: when it may be said to have reached its lowest point of degradation and corruption. Thus far we have marked its decline; but as, in our brief sketch of the English language, we spoke of the Latin as being the general medium of intercourse between the learned of the various nations of Europe at a much later period than that which we have assigned to its death as a pure language, it is necessary, both for the information of our readers, and to save ourselves from being charged with inconsistency, to state the causes which led to its revival; to this end we shall, accordingly, devote another paper in some subsequent number. What we have already said our young readers may find of signal use, as it will, with a very little pains and attention on their own part, greatly facilitate their acquisition of a pure Latin style and phraseology, which are of great importance on many accounts.

(To be continued.)

ACCOUNT OF THE FIRST INSTITUTION OF THE OFFICE OF POET LAUREAT.

GREAT confusion has entered into this subject, on account of the degrees in grammar, which included rhetoric and versification, anciently taken in our universities, particularly at Oxford; on which occasion a wreath of laurel was presented to the new graduate, who was afterwards usually styled *Poeta Laureatus*. These scholastic laureations, however, seem to have given rise to the appellation in question. We will give some instances at Oxford, which, at the same time, will explain the nature of the studies for which our academical philologists received their rewards.

About the year 1470, one John Watson, a student in grammar, obtained a concession to be graduated and laureated in that science, on condition that he composed one hundred Latin verses, in praise of the university, and a Latin comedy. Another grammarian was distinguished with the same badge, after having stipulated, that, at the next public act, he would affix the same number of hexameters on the great gates of St. Mary's church, that they might be seen by the whole university. This was, at that period, the most convenient mode of publication. About the same time, one Maurice Byrchensae, a scholar in rhetoric, supplicated to be admitted to read lectures, that is, to take a degree in that faculty; and his petition was granted, with a provision, that he should write one hundred verses on the glory of the university, and not suffer Ovid's *Art of Love* and the *Elegies of Pamphilus* to be studied in auditory. Not long afterwards, one John Bulman, another rhetorician, having complied with the terms imposed,—of explaining the first book of Tully's *Offices*, and likewise the first of his *Epistles*, without any pecuniary emolument,—was graduated in rhetoric, and a crown of laurel was publicly placed on his head by the hands of the chancellor of the university. About the year 1489, Skelton was laureated at Oxford, and, in the year 1493, was permitted to wear his laurel at Cambridge. Robert Whittington affords the last instance of a rhetorical degree at Oxford. He was a secular priest, and eminent for his various treatises in grammar, and for his facility in Latin poetry. Having exercised his art many years, and submitting to the customary demand of an hundred verses, he was honoured with the laurel in the year 1512. This title is prefixed to one of his grammatical systems,—“*Roberti Whittingtoni, Lichfieldensis, Grammaticos Magistri, Protonatis Angliæ, in florentissima Oxoniensis Academia Laureati, de Octo Paribus Orationis.*” In his Panegyric to Cardinal Wolsey he mentions his laurel,—

“*Suscipe lauricomi munuscula parva Roberti.*”

With regard to the Poet Laureat of the kings of England, an officer of the court remaining under that title to this day, he is undoubtedly the same that is styled the king's versifier, and to whom one hundred shillings were paid as his annual stipend in the year 1251. But when or how that title commenced, and whether this officer was ever solemnly crowned with laurel at his first investiture, we will not pretend to determine, after the researches of the learned Selden on this question have proved unsuccessful. It seems most probable, that the barbarous and inglorious name of versifier gradually gave way to an appellation of more elegance and dignity; or, rather, that at length those only were in general invited to this appointment, who had received academical sanction, and had merited a

* He was the first professor ever paid out of the public purse at Rome.

crown of laurel in the universities for their abilities in Latin composition, particularly Latin versification. Thus the king's laureat was nothing more than "a graduated rhetorician employed in the service of the king." That he originally wrote in Latin, appears from the ancient title *versificator*, and may be, moreover, collected from the two Latin poems which Baston and Gulielmus, who appear to have respectively acted in the capacity of royal poets to Richard I. and Edward II., officially composed on Richard's crusade, and Edward's siege of Stirling Castle.

Andrew Bernard, successively poet laureat of Henry VII. and Henry VIII., affords a still stronger proof that this officer was a Latin scholar. He was a native of Toulouse, and an Augustine monk. He was not only, the king's poet laureat, as it is supposed, but his historiographer, and preceptor in grammar to Prince Arthur. He obtained many ecclesiastical preferments in England. All the pieces now to be found, which he wrote in the character of Poet Laureat, are in Latin: these are, "An Address to Henry VIII. for the most Auspicious Beginning of the Tenth Year of his Reign, with an Epithalamium on the Marriage of Francis, the Dauphin of France, with the King's Daughter;" "A New Year's Gift for the year 1515;" and "Verses wishing Prosperity to His Majesty's Thirteenth Year." He has left some Latin hymns, and many of his Latin prose pieces, which he wrote in the quality of historiographer to both monarchs, are remaining.—*Annual Register*, 1778.

Poet Laureat.—Watson quotes Powell, to prove that, at the carousal made by Rhees ap Gryfydd, A.D. 1176, in the castle of Cardigan (Abertivi), stools were set, when the bards tried their wit and strength of song against each other, and rich gifts rewarded the overcomers. Rhees's own folks were observed to win most prizes; and the next year he attended the parliament at Oxford, where, with his numerous retinue, he was magnificently entertained by Henry, who loved the bards, and was the first of all our kings who kept a regular poet laureat: he was called Maistre Henri D'Avranches, his Grace's *Versificator*, and had 100 shillings a-year pension from the privy purse,—more than 100*l.* a-year now.—*Piozzi's Retrospection*, 1809.

AGE.—He that would pass the latter part of his life with honour and decency, must, when he is *young*, consider that he shall one day be *old*, and remember, when he is *old*, that he has once been *young*.

Our dreams are great instances of that activity which is natural to the human soul, and which is not in the power of sleep to *deaden*, or *abate*.—SPECTATOR.

MISCELLANEOUS.

THE POST IN INDIA.—The Post-Office is in almost all countries a monopoly. India is an exception to this rule. The present mode of conveying the mail is by runners, who travel at the rate of about four miles an hour. In some parts of the Deccan, a horse post has been tried, and in one instance a light carriage. The nature of the country is at present unfavourable for the use of these improvements; but as it advances in prosperity, the importance of rapid and certain modes of communication will become apparent, and the means will doubtless be provided. The post is yet little used by the natives, and the revenue derived from it is trifling.—*Thornton*.

AN ACCOUNT OF THE CELEBRATION OF HIGH MASS, BY THE POPE, IN ST. PETER'S.

WHEN the Pope celebrates divine service, as on Easter Sunday, Christmas-day, Whit Sunday, St. Peter, and St. Paul, &c., the great or middle doors of the church are thrown open at ten, and the procession formed of numberless individuals, preceded by a beadle carrying the papal cross, and two others bearing lighted torches: these enter and advance slowly, in two long lines, between two ranks of soldiers, up the nave. This majestic procession is closed by the Pontiff himself, seated in a chair of state, supported by twenty valets, half concealed in the drapery that falls in loose folds from the throne. He is crowned with his tiara, and bestows his benediction on the crowds that kneel on all sides as he is borne along. When arrived at the foot of the altar, he descends, resigns his tiara, kneels, and, assuming the common mitre, seats himself in the episcopal chair, on the right side of the altar, and joins in the psalms and prayers that precede the solemn service. Towards the conclusion of these preparatory devotions, his immediate attendants form a circle around him, clothe him in his pontifical robes, and place the tiara on his head; after which, accompanied by two deacons and two sub-deacons, he advances to the foot of the altar, and bowing reverently, makes the usual confession. He then proceeds in great pomp through the chancel, and ascends the pontifical throne, while the choir sing the *Introit*, or Psalm of Entrance, the *Kyrie Eleison*, and *Gloria in excelsis*, when the Pontiff lays aside his tiara, and, after having saluted the congregation in the usual form, "*The Lord be with you*," reads the collect in an elevated tone of voice, with a degree of inflection just sufficient to distinguish it from an ordinary lecture. The epistle is then read, first in Latin, then in Greek; and after it, some select verses from the Psalms, intermingled with Allelujahs, are sung to elevate the mind, and prepare it for the Gospel. The Pontiff then rises, gives his benediction to the two deacons that kneel at his feet with the books of the Gospels, and, resigning his tiara, stands while the Gospel is sung in Latin and in Greek; after which he commences the Nicene Creed, which is continued in music by the choir. When the creed and the psalm that follows it are over, he descends from his throne, and approaching the altar, with the same attendants, and the same pomp as in the commencement of the service, he receives, and offers up the usual oblations, fumes the altar with frankincense from a golden censer, and then washes his hands; a ceremony implying purity of mind and body. He then turns to the people, and, in an humble and affectionate address, begs their prayers; and shortly after commences that sublime form of adoration and praise, called the Preface, because it is an introduction to the most solemn part of the Liturgy, and chaunts it in a tone supposed to be borrowed from the ancient tragic declamation, and very noble and impressive. The last words, "*Holy, Holy, Holy, Lord God of armies*," &c., are uttered in a posture of profound adoration, and sung by the choir in notes of deep and solemn intonation. All music then ceases, all sounds are hushed, and an awful silence reigns around; while, in a low tone, the pontiff recites that most ancient and venerable invocation, which precedes, accompanies, and follows the consecration, and concludes with great propriety in the Lord's Prayer, chaunted with a few emphatical inflections.

Shortly after the conclusion of this prayer, the Pontiff salutes the people in the ancient form, "*May the peace*

of the Lord be always with you," and returns to his throne, while the choir sing thrice the devout address to the Saviour, taken from the Gospel, "Lamb of God, who takest away the sins of the world, have mercy upon us." When he is seated, the two deacons bring the holy sacrament, which he first reveres humbly on his knees, and then receives in a sitting posture: the anthem after communion is sung, a collect follows, and the deacon dismisses the assembly.

The Pope then offers up his devotions on his knees at the foot of the altar, and borne along in the same state as when he entered, passes down the nave of the church, and ascends by the Scala Regia to the grand gallery in the middle of the front of St. Peter's. His immediate attendants surround his person, the rest of the procession draws up on each side. The immense area and colonnade before the church, are lined with troops, and crowded with thousands of spectators. All eyes are fixed on the gallery, the chaunt of the choir is heard at a distance, the blaze of numberless torches plays round the columns, and the Pontiff appears elevated on his chair of state, under

the middle arch. Instantly the whole multitude below fall on their knees, the cannons from St. Angelo give a general discharge, while, rising slowly from his throne, he lifts his hands to heaven, stretches forth his arm, and thrice gives his benediction to the crowd, to the city, and to all mankind; a solemn pause follows, another discharge is heard, the crowd rises, and the pomp gradually disappears. This ceremony is, without doubt, very grand, and considered by most travellers as a noble and becoming conclusion to the majestic service that precedes it. In fact, every thing concurs to render it interesting; the venerable character of the Pontiff himself, the first bishop of the christian church, issuing from the sanctuary of the noblest temple in the universe, bearing the holiness of the mysteries, which he has just participated, imprinted on his countenance, offering up his supplication in behalf of his flock, his subjects, his brethren, his fellow-creatures, to the Father of all, through the Saviour and Mediator of all. Surely such a scene is both edifying and impressive! —*Eustace's Tour in Italy.*

Literary Review.

80. *A Greek and English Lexicon, &c.* By M. WRIGHT. 12mo. London: Tegg and Sons. Glasgow: Griffin and Co. Dublin: Tegg and Co.

THIS is a correct, compendious, and pretty edition, and from its size very convenient. The Introduction familiarly explains the terminations of Greek words, so important to a right understanding of the phraseology of that language; and in addition to the two parts, Greek-English and English-Greek, but commonly found in abridged lexicons, there are two others, one of *difficult inflexions*, and another of *proper names*; which together make this volume particularly useful to the Greek student.

81. *Noble Deeds of Woman.* Foolscape 8vo. Pp. 367. London: Hookham; Bailey and Co; Souter.

IN this volume the reader will meet with countless lessons of prudence and noble bearing which the female sex continually and beautifully display, too often to the unappreciating gaze of man's sterner nature. The female character is here instructively exhibited, throughout the numerous and various circumstances of life most correctly, most diligently, and most praiseworthy. Some of the incidents are exciting, yet not too highly coloured; some are commonplace, yet not recorded with a dash of insignificance; and others, by far the greater portion, are most highly useful in portraying the great moral excellence of virtue, and the noble worth of an exalted mind and a dignified demeanour. To reasonable minds also these anecdotes will tend to show that

"The star of life, where'er he roam,
Is she whose ray attracts him home."

82. *The Corporations of England and Wales, containing a succinct Account of the Constitution, Privileges, Powers, Re-*

venues, and Expenditure, of each Corporation; together with Details, shewing the Practical Working of the Corporate System in each Borough or City; and any Defects or Abuses which may have been found to exist. The whole collected and abridged from the Reports of the Commissioners, &c. By A. E. COCKBURN, Barrister at Law, one of the Commissioners. 2 vols. 8vo. London: Longman & Co.

IN this instance we have been particular in giving the entire title, from the conspicuous manner in which it shows the object, nature, and uses of the work; and the more especially, as the circumstances of the country at this moment, and the public attention likewise, are affected and directed by the state, and attempts at reformation, of the municipal corporations of the kingdom. The work will be found to the lawyer, and even to the general reader, to be very useful, as it contains an authentic narrative of historical facts, and many pertinent and acute observations relative to our corporate system.

83. *British Botany explained and described; with Twenty-eight Coloured Plates.* 12mo. pp. 233. London: Simpkin and Marshall; Groombridge. Dublin: Wake-man.

THE science of Botany has latterly become the favourite study of a very extensive portion of the female classes of society, as well as of many of the other sex, whose time and circumstances have been favourable to its pursuit. That amusement is to be found in the study there can be no question; for we never gather a blooming flower but our admiration of its beauties awakens in us an eager curiosity to ascertain the uses of its various parts, to be acquainted with its "upward growth" from seed to maturity, and know how far it can be made subservient to our wants and our necessities.

"'Tis beauty, bloom, and brightness all! How rich
The wooing luxury of floral meads,
Reposing in the noon."—R. MONTGOMERY.

It is through Botany, likewise, we are led to the contemplation of many of the glories of Nature, not only in her richness and her beauty, but also in her immensity. We feel an inward glow of pleasure when we look upon the smiling rose-bud, in blushing innocence sending forth the incense of her nature by the agency of a gentle zephyr; and did we know but the manner of its structure, how enhanced would be our wondering pleasure; and further, how truly sensible we should be that

"There's not a plant or flower that grows,
But shows its maker, God!"

These observations are applied to botany generally, concerning which many valuable works have been lately published. The volume before us relates entirely to British Botany; and, notwithstanding it is thus circumscribed, it gives a very good and extensive notion of the science generally. It is in the form of dialogue, plainly, but pleasantly written; and as an elementary work will prove very serviceable. The plates, likewise, are numerous and explanatory, and much augment its value.

NOTICES TO CORRESPONDENTS.

The question of "C.M." involves so many contingencies, that he had better put them in detail, and also in *juxta-position*.

The Lines of "X.N." are not in perfect rhyme or measure, and cannot therefore be admitted; the subject is well enough, if properly handled.

We thank "J.R." for his communication; we will look it over.

"T." in our next.

The previous communication of "φιλοβιβλος" never reached us.

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PINNOCK'S
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No. CXCI.]

SATURDAY, SEPTEMBER 5, 1835.

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JOAN OF ARC, THE MAID OF ORLEANS.

From a Painting by Opie.

In our last number, we promised our readers a few further particulars relative to this renowned heroine, in addition to those previously given in Vols. I. and II. of this work, and likewise to illustrate them by an engraving.

When the affairs of France, in the reign of Charles VII., were in a desperate condition, and the city of Orleans, the most important place in the kingdom, was besieged by the English regent, Bedford, as a step to

prepare the way for the conquest of all France; the French king used every expedient to supply the city with a garrison and provisions; and the English left no method unemployed for reducing it. The eyes of all Europe turned towards this scene of action, and, after numberless feats of valour on both sides, the attack was so vigorously pushed by the English that the French king gave up the city as lost, when relief was brought from a very unex-

pected quarter, by the valour and heroism of a village maid, one Jeanne d'Arc.

This girl was born of obscure parents ; and at an early age, from their incapability of maintaining her, she quitted them and sought a livelihood as waiting-maid at a small inn. Subsequently, influenced by the frequent accounts she heard of the rencounters at this memorable siege, and affected with the distresses of her king and country, she was seized with a wild desire of relieving him ; and as her inexperienced mind worked day and night on this favourite object, she fancied she saw visions, and heard voices, exhorting her to re-establish the throne of France, and expel the English invaders. Listened to by her dis-

mayed countrymen, and supported in her wild enthusiasm, she entered on her "divine mission," as she termed it, which she carried through to the full extent of her promises and anticipations, but terminated her valorous career, as some authors affirm, in an ignominious death. As a mark of his gratitude, Charles had a medal struck in her honour ; on one side was her portrait, on the other a hand holding a sword, with these words, *Consilio confirmata Dei* ; "Sustained by the assistance of God." The king also ennobled her family, as well in the male as in the female line ; the former, however, became extinct in 1760. In 1614 the latter, at the request of the procurator-general, were deprived of their privilege of ennobling

their children, independent of their husbands. The town of Domremy, also, her birth-place, was exempted from all taxes, aids, and subsidies, for ever.

The history, however, of this extraordinary heroine is involved in many doubts and difficulties, and has too many of the features of romance for serious belief. It has lately even been doubted whether she was actually put to death, and some plausible evidence has been brought forward to prove that the judges, appointed by the duke of Bedford to try her, passed a sentence from which they saved her on the day of execution by a trick, and that she afterwards made her appearance, was married to a gentleman of the house of Amboise, in 1436, and her sentence was annulled in 1456. Be this as it may, her memory has long been consecrated by her countrymen, none of whom, however, have done her so much honour as our poet-laureat, Mr. Southey, in his admirable poem of "Joan of Arc." For further particulars of this interesting subject, we must refer our readers to pages 53 and 477 of Volume I. and pages 144 and 158 of Volume II. of this work.

The Illustration of our artist at the head of this article, is copied from a painting by the celebrated Opie; and represents the maid of Orleans, in her wild enthusiasm, attempting to convince those learned doctors who examined her of the truth and reality of her bold mission.

SKETCHES OF ARTS AND SCIENCES.

NO. V.—NAVAL ARCHITECTURE, OR SHIP-BUILDING.

IN the absence of every historical document that can throw any light on the origin of ship-building, we must be content with hazarding conjectures which may reasonably account for the invention of that valuable art which has opened a ready communication between countries separated by seas and oceans, and facilitated an interchange of commodities highly conducive to the convenience and comfort of the human race.

It was, no doubt, early observed that timber was buoyant on the water; and as man in his most savage state possesses some curiosity, no doubt but it was found by experiment to be capable of sustaining some additional weight without sinking. This naturally suggested the idea of joining several pieces together, and forming a raft, by which considerable weights might be transported across rivers, by means of long poles, that would reach the bottom, and thus push it along. The next idea that occurred was, probably, to add sides to the raft, and to fill up the interstices between the timbers with something that would prevent the water from oozing through them. But the raft, thus improved, would be too cumbrous a machine for general use, especially for one or two persons who might have occasion to cross rivers in their hunting excursions or their journeys; it is, therefore, reasonable to suppose, that the idea of hollowing out the trunk of a large tree, either by fire, or by means of the rude tools then known, would readily occur:

The use of oars and sails seems to have been of much later invention. On what foundation Tibullus gives that of the latter to the Tyrians we know. He says,

Prima ratem ventis credere docta Tyros, |

"Tyre first learned to entrust a ship to the winds:" but this may refer to the invention of the helm or rudder, as,

without it, it would be madness to hoist sails and commit a ship to the wind.

It is conjectured that the form of a ship was suggested by the ark which was built by Noah, under the immediate direction of the Almighty. Before the invention of sails and oars, it could be used only on rivers, where it could be drawn by men or animals, by means of a long rope attached to it. Oars, it may be presumed, preceded the use of sails, as the latter could be used only with a fair wind in the infancy of Navigation, and, therefore, recourse must have been had to the former whenever that failed.

When the art of ship-building had so far advanced in Phœnicia, Greece, and other civilized countries, as to furnish the vessels with masts, sails, oars, and helm, and their size was so increased as to render them capable of containing many persons, their appearance gave rise to allegories which were afterwards corrupted into the most absurd fables. Thus the story of Perseus flying to assail the Gorgons; Europa crossing the Hellespont on the back of a bull; Phryxus on a ram to Colchos; and many other mythological fables; signify nothing more than that they were transported in ships, with expanded sails, that were distinguished by those names or signs.

In process of time, improvements were made in the form and rigging of ships; and vessels were divided into different classes, according to the uses for which they were designed. Ships of war were made long and narrow, that they might pass through the waves with the greater celerity: those for transporting commodities were constructed wide, and more capacious. The latter were usually impelled by the wind, the former chiefly by oars. At first, the sails were formed of the skins of animals, but afterwards of flax and hemp.

The Carthaginians had made considerable proficiency in Naval Architecture, and had sent fleets, both of war-like galleys and merchantmen, to sea, long before the Romans were in possession of a single ship. One of their vessels, however, having been stranded on the shores of Italy, the Romans seized it, and constructed others, on the model thus accidentally sent them. These ships of war they termed *naves longæ*, from their greater proportionate length than that of other kinds. They likewise denominated such as had two banks of oars, *biremes*, three ranks, *triremes*; four ranks, *quadriremes*; five ranks, *quinquiremes*, &c.

Persons are apt to imagine that the ships of the ancients were insignificant in bulk when compared with those of modern times; but though this may be true of the majority, there are descriptions on record of vessels, compared with which, our first rates are mere cock-boats. Ptolemy Philopater is said to have built a galley of forty banks of oars: she was 1568 feet in length 57½ feet wide, and 70 deep: she was impelled by 400 rowers, and manned by 4000 sailors and 3000 soldiers; making her complement 7400 men. Another, of nearly the same dimensions, was constructed by the same prince for navigating the Nile. Still more capacious vessels were built by Hiero, king of Syracuse, about 230 years before Christ; and by Caligula, A.D. 40, in which, it is said, were banquetting rooms, galleries, baths, a library, a temple, gardens, fishponds, a spacious gymnasium, &c. adorned with every thing that luxury could devise, or unbounded riches purchase. But these accounts must be received *cum grano salis*; at best they were ostentatious incumbrances, being too unwieldy to be of any use as ships.

Although the Romans brought Naval Architecture to considerable perfection, the Britons did not profit much by their instructions in this art. The ships, likewise, of the Anglo-Saxons were small and ill built; but after the Norman conquest, more attention was paid to their construction, and the vessels of that period were larger, better built, and more numerous than those of the preceding. The Saracen ship captured by Richard I. near the port of Acon, was of prodigious magnitude, as it contained no fewer than 1500 men.

The Crusades, so pernicious both to Europe and Asia, in other respects, greatly promoted the art of ship-building. The people of Messina were filled with admiration at the sight of the numerous and well-appointed fleet of Richard I. of England, when it entered their port. Yet authentic accounts of the magnitude of ships in later times lead us to suppose that the descriptions of the enormous vessels already mentioned are gross exaggerations. In the time of Edward I. forty men were considered as the full complement for the largest ship in the English navy; and in the fleet of Edward III. before Calais, the average number for each ship did not exceed twenty.

The trading republics of *Venice* and *Genoa* built vessels that were in those days considered of great magnitude. These were, however, soon exceeded by the Spaniards; and these again by the ships of the Hanse Towns. Ships of 1000 tons burthen were by no means rare in the reigns of Edward IV. and Henry VIII.; and by the later monarch, one was built of much larger dimensions, and called *Henrie Grace de Dieu*. These ships carried cannons on their upper decks only, gun ports not having been made before the year 1545. The largest vessel of Queen Elizabeth's navy did not exceed 1000 tons, and the number of ships was only thirty-nine, some of which were very small. None of the ships of the Spanish Armada exceeded our third-rates in size; and they were so badly constructed that they were heavy sailers, could not be brought near the wind, and were unmanageable in tempestuous weather.

Since this period, the art of building both men-of-war and merchant vessels has wonderfully improved, and been conducted on scientific principles. By the application of the power of steam to the propelling of vessels through the water, a species of ships something resembling the ancient gallies has been introduced; but they have not as yet been applied to the purposes of war. Sheathing the bottom of the vessels with copper is a modern improvement, and attempts have been made to construct ships of iron, but the undertaking is as yet in its infancy. False keels have been added to the real one, which can be drawn up or let down at pleasure: they serve to steady a ship in tempestuous weather, and prevent her from making much lee-way. Naval Architecture has been brought to great perfection in Britain; and her fleets, both of men-of-war and merchant vessels, exceed those of any other nation.

SLEEP.

How wonderful, how superlatively useful, is sleep! We have elsewhere spoken of its usefulness; we now merely wish to direct the attention of our readers to its nature. How gradually and how spontaneously does sleep advance to lay our limbs in repose, and to steep our senses in forgetfulness! We cannot command it when the necessities of our nature do not demand it; and when

they do, we cannot, except for a very short period, resist its soothing and stealthy influence. The heart still continues its mighty and important pulsation, the digestive powers still supply new nutriment to the stream of life; in a word, we still continue to live and to breathe. But how different is our waking and our sleeping existence! In the former, every nerve and every muscle are in turn called into action; the subtle spirits dance through our veins; the brain is agitated, our body in full motion, and our limbs in powerful exertion; we draw upon our every power, and exert, and consequently fatigue, our every faculty. In the latter, on the contrary, our limbs lie in tranquil repose, the mental faculties rest, and the muscles, those ministers to our will and performances of our wishes, lose that strong tension which, but for such repose at certain intervals, they would speedily lose for ever. How tranquilly lies the still and undisturbed sleeper! Yet he inhales the breath of life, and his blood courses freely and regularly through his veins. It is indeed wonderful!

Even for its own abstract nature sleep is well worthy of the observation and the reflection of every one of us. But the resemblance between its outward and visible signs, and those of its twin brother, death, gives it a still deeper, more touching, and even more awful interest.

The dead and the sleepers are alike voiceless, motionless, powerless, and unconscious. Their eyes may remain open, they may be fixed stedfastly and even brilliantly upon us, or upon some other object; but they present no picture to the hushed and powerless brain. To gaze upon a sleeper, even though that sleeper be an infant, has for us a solemn and almost awful interest, nearly approaching to that with which we gaze upon the dead.

Surely, surely, could the wicked, who break into the dwellings of the peaceful and the honest, call to mind the resemblance between sleep and death, they would retire stricken in mind, and guiltless of having fulfilled their wicked purpose!

Think often and deeply, dear youth, of the resemblance between sleep and death; and fail not to bear in mind, that as *sleep* is common to all mankind, so also is *DEATH*.

ON MAGICIANS AND MAGIC.

THE words magicians and magic are derived from the name of the priests of one of the principal idolatries of ancient times. These magi, or magicians, were instructed by the great Zoroaster in various branches of sciences and learning; and as they kept the information thus acquired exclusively in the possession of their own order, and applied it to the use of keeping the mass of the people in subjection, they were supposed to act with a supernatural assistance. By their skill in astronomy, they were enabled to foretell eclipses; and as their mastery of meteorology was sufficient to enable them to prognosticate, with tolerable certainty, all great changes in the weather, as from wet to dry, and contrariwise, a matter requiring no great skill in the East, they were supposed by the ignorant multitude, to have the power of controlling the seasons.

In those early ages, an acquaintance with a few of the simplest terms of natural philosophy was sufficient to procure its possessor the title of a magician, and a corresponding power and influence over the minds, and, to a certain extent, over the persons and properties of the ignorant.

The Greeks, and subsequently, through their medium, the Romans also, with the learning of the East, contracted its superstitions; and even in the time of Augustus, during whose reign our Redeemer was born, witchcraft, or magic, was believed in by nine out of every ten Romans; the philosophers and the people, who were reputed to be witches, alone excepted. Horace inveighs most bitterly and indignantly against the sorceries of Canidia and Sagana; and though he undoubtedly does so chiefly for the sake of displaying his own powers, yet it seems very certain, from the tone in which he writes, that he expected his readers to be more awed by the *wickedness and power* of those two beldames, than disgusted at their *impudence and imposture*.

Some of the pretensions of the self-styled magicians were infamous, others merely nonsensical; but they were all eagerly inquired after, and greedily and implicitly believed, by the greater portion of the Roman population. From them they descended to more modern nations, and unfortunately, are not even yet wholly without knavish professors or credulous dupes. Though at first sight it will seem a little improbable, yet the fact is so, that to the errors of the great, and the lawgivers of former days, the mean and the ignorant of our own time owe the baseless and ridiculous superstitions which, in some instances, are productive of the most frightful tragedies; though happily their effects are more generally purely nonsensical and laughable.

In the earlier ages of Christianity the tribunals of justice were unhappily not wholly freed from the pestilent and mischievous errors which sprang into being during the times of Paganism; impostors were still to be found who pretended to have communication and influence with the powers of darkness; and the constituted authorities, instead of pitying their delusions or despising their paltry impostures, treated the latter as real, though mischievous and illegal powers. He who pretended to have the power of predicating the actions, and of exercising a malign influence upon the fortunes of his, according to his account, less gifted and favoured fellows, was burned as a sorcerer, instead of being exposed as a cheat. The consequences of this lamentable, and we must add also, this very creditable error, were obvious and inevitable. The untaught and thoughtless multitude could not deem that their superiors would enact laws against sorcery, and light the consuming and torturing fires for sorcerers, if the former were merely a figment, and the latter merely miserable fanatics or vile cheats; and the very same rabble which shouted in rapture at the agonizing execution of one impostor to-day, because they were taught to suppose him possessed of a supernatural power to injure or annoy them, would to-morrow heap presents upon a similar impostor, in the hope of bribing him to exert similar powers on behalf of themselves, or to the injury of their enemies, real or imaginary. As mankind have become more and more enlightened, the more horrible of the alleged abilities of magicians and witches have become the less and less extensively believed. Even among the most ignorant and dissolute of our population, the instances are happily very rare of persons attributing the illness of themselves and their children, or the death of their cattle, to the influence of an old and infirm woman, who happens to have a somewhat unattractive countenance, and a black cat. Yet even such gross errors as this are not *quite* extinct; and in one of our criminal courts, some peasants, ferocious in their utter and depraved ignorance, were very

recently punished for having barbarously assailed an old woman whom they suspected to have leagued, to their injury, with the powers of darkness, and maltreated her in the most brutal manner. Even a single instance of such mingled wickedness and stupidity is painful to contemplate in times when the means of attaining to comparative wisdom are so generally attainable as at present. Fortunately, these *extreme* cases are very rare; but a scarcely more excusable, excepting as it is a less brutal degree of credulity, is, we regret to say, exceedingly common: we allude to belief in omens, and in the knowledge of futurity, which those most contemptible of all impostors, fortune-tellers, make pretensions to possessing.

We have spoken as fully as we deemed necessary upon this particular species of credulity in another article, and we only now allude to it for the purpose of remarking that there is but one, and that a trifling degree, in the difference between the wickedness and folly of those who consult ignorant mortals about that futurity which is visible only to the eye of the Almighty, and the wickedness and folly of him who thinks age and imbecility necessarily connected with demoniacal propensities and powers; and these latter, the cause of those judgments which our Creator, for his own wise, merciful, and inscrutable purposes, occasionally passes upon the high and the low, the rich and the poor, the wise and the foolish, upon the innocent, and upon the guilty. Nothing is more contemptible in men, or more dangerously ridiculous in women, than to give heed to persons every way the most despicable of our species, upon subjects on which even the wisest of us is as the blind amid beautiful scenery, or as the deaf amid harmonious sounds.

OF QUICKSILVER AND PLATINA.

QUICKSILVER though not, in strictness of speech, one of the *precious* metals, is, in verity of sound reasoning, a very precious metal: for it is not only of very important service in separating the precious metals from the rough ores, but is also the only fluid substance with which the tubes of thermometers and barometers, which can be depended upon with any certainty, may be filled. If it had no other merits than those which we have described it to possess, it would be an exceedingly valuable metal, and an important article of commerce. But in addition to these great properties it has several others. In conjunction with tin-foil, it forms that silvery amalgam which is used to increase the reflective powers of looking-glasses. Mixed by a proper process with sulphur, it produces that extremely fine and valuable paint which is called vermilion. It is also variously used in medicine; and when calcined, it is one of the most potent and efficacious remedies known to even modern art.

There are mines of quicksilver in various parts of the world. The most celebrated and productive are those of Idria, in the Austrian dominions; Almader, in Spain; and Guançavelica, in Peru.

That at Idria has been worked during nearly three centuries; and its existence was first discovered, as it is said, in a somewhat extraordinary and remarkable manner. Idria is remarkably productive of wood,

and was consequently, until the discovery of this mine, chiefly inhabited by different artisans working in wood. One of these men, a cooper, having a desire to ascertain if a tub which he had made would hold water, placed it during the night under a spring which dropped, or trickled, near his residence. On going to his tub in the morning, having left it at the spring all night, he found that it was full of water, and also at the same time found, to his mingled surprise and dismay, that it was too heavy for him to raise it from the ground. Looking closely into the water, he perceived that the whole bottom of his tub was covered with a liquid metal, of a shining brightness. Having removed it by degrees, and being astonished at the peculiar appearance it presented, he carried it to the nearest town. On his arrival there, it happened that the first person to whom he applied for a description of his strangely-acquired burthen, was an apothecary. This man of course immediately knew the value of the shining substance. Disguising his satisfaction, however, he assured the simple peasant that it was of very inconsiderable value; adding, however, that as he could make use of it, he would purchase it. The bargain between knavery and simplicity was not long in being brought to a conclusion. The apothecary obtained the quicksilver for less than a hundredth part of its real value, and persuaded the cooper to obtain him large supplies at a similarly inadequate price. The avarice of the apothecary at last defeated its own purposes; the secret became spread; the government sent men of science to examine the source of the spring; and the quicksilver mine of Idria, which has for centuries produced enormous wealth to the country, was the sequel of the singular discovery of the cooper. Valuable as quicksilver is, and abundantly as it exists in some of the best mines, it is only procured from them at the sacrifice of the health and even of the lives of many of our fellow-creatures. All kinds of mining, except, perhaps, working in salt mines, is exceedingly unwholesome; but compared to quicksilver mines, the most deadly of the other kinds of mines are innoxious. So destructive of health are the fumes of these terrible places, that the strongest men rarely live beyond the fourth or fifth year from the time that they enter them. The quicksilver mines of Idria are as much as 100 fathoms beneath the level of the sea, and are dreadfully destructive of health and life. The labourers in this terrible abyss are criminals condemned to this banishment, and to the terrible certainty of a premature death, on account of their crimes against the state, or against individuals.

Quicksilver is exceedingly ponderous, and yet it is the only metal which can be kept in a fluid state at a moderately low temperature; which property, probably, it partly owes to the globosity of its constituent particles.

Platina is the name of a metal which is almost as white as silver; and the word is from the Peruvian and signifies *petit*, or *little silver*. It is neither so fusible nor so ductile as silver, but in ponderosity it exceeds all metals, not even excepting gold itself. In a pure state, it is principally found in South America and St. Domingo; but considerable quantities of it, mixed with silver ore, have also been found in Spain.

As it is not liable to be corroded by salts or acids, and is capable of resisting a very great degree of heat, it is in great request for the manufacture of utensils employed in chemical operations and experiments. It is also used in enamel and porcelain paintings, and is largely used as an alloy both of gold and of silver.

CALUMNY.

SCARCELY any vice is practised so generally, and yet so universally censured, as this. If we know a person to be a calumniator, we content ourselves with censuring him when he has left our company, instead of reproving him while he is present, or, which would be the preferable course, withdrawing ourselves at once from him and his hateful discourse.

The sources of this most abominable and injurious vice are various. Some calumniate their neighbours from malice; some in complaisance to the malice or gossiping inclination of others; some in order to display their real or supposed wit; and others, in sheer idleness and admiration of the sound of their own voices.

Some writers have assigned to these various classes of calumniators various degrees of hatefulness, but we confess that we cannot see the justice of any such distinction. No one who possesses so much intellect as raises him above the level of actual idiots, can be unaware that in traducing his neighbour he is doing him a very serious injury; and, therefore, he who for the mere sake of idle amusement inflicts an injury upon an unoffending person, appears to us to be no less blamable than he who does so in revenge of some real or supposed outrage or affront. Each calumniates from the same *first* motive, viz. *self-gratification*; and whether that gratification consists in showing off small wit, or in returning an injury, it is equally a crime against him whose good name is sported with. Nor is the first inventor of a calumny the only blamable person concerned in it: all those who give currency to it, no matter what their motives may be, are, in our opinion, equally culpable, and, we may add, equally contemptible; for contemptible indeed is that man who seeks amusement or profit at the expense of the character of another. Upon the wretched thief who robs us of a few paltry pieces of coin, the law justly and inexorably inflicts a severe punishment: we turn from him with loathing and abhorrence, and so rigorously shut our doors upon him, as, in many instances, it is to be feared, to prevent his return to more virtuous pursuits; and is he who robs us of the more valuable possession—a good character, less deserving of punishment and shame than he who deprives us of a less valuable one, in the form of a few pieces of money? Assuredly not. To award a punishment to each of the various degrees of calumny would probably be impossible, without giving rise to the scarcely lesser evil—a perpetual and vexatious litigation; but it is quite possible for every individual to do his part towards arresting the career of this monstrous vice, by instantly and indignantly resenting any attempt at practising it in his presence.

It may at first sight seem strange that, this vice being so exceedingly injurious in its effects, no general combination is formed against those who are guilty of it. A little, a very little, consideration will suffice to show the reason of this apparent anomaly.

Men are universally indulgent to themselves, and view vice in others with very different feelings from those with which they regard the same vices when practised by themselves. There are very few, perhaps, in fact, there are no persons, who do not detest him whom they know to be a calumniator; but, unfortunately, that same species of prattle which in another they call calumny, they themselves indulge in, under the specious title of a just reprobation of vice or folly, or an innocent turn for satire. It

is thus that many who would recoil with horror from the crime of wantonly injuring the character of another, indulge in idle and scandalous gossip, and thus give countenance and encouragement to more malicious, though, according to our opinion, scarcely more reprehensible slanderers.

Calumny is at once the most deadly and the most cowardly weapon of the wicked; and where it is used by idle or silly persons, it resembles, in its nature and effects, an edged-tool in the hands of a child.

No truly good man loves to speak ill even of those whose conduct would warrant him in so doing; and a person who possesses common sense and common honesty will no more assail the character of his unoffending neighbour than he would his purse or his person. All who have characters to lose are interested in checking, and, if possible, annihilating this shameful and most unmanly vice; and the first duty of those who desire to do so, is to abstain from idle censure of the real or imputed faults or follies of their fellows. The very best among us has a sufficiency of faults and follies to render him humble; and it would be well to work diligently and constantly at our own reformation, ere we censure those whom we know to be evil, or add to our own faults or weaknesses by falsely imputing them to those who are wiser and purer than ourselves.

Calumny is represented, in painting, by the figure of a female, of a treacherous and enraged countenance. In one hand she has a lighted torch, and with the other she is dragging, by the hair of his head, a youth, whose hands are joined, and raised to heaven, as if protesting his innocence. This denotes that CALUMNY is a malicious and false representation of words or actions, and that its aim is the destruction of the characters of others. A basilisk is usually introduced, because it is fabled that the very glare of this animal is hateful, and it indicates that a calumniator accuses his neighbour behind his back, which is as cowardly as it is resistless. The lighted torch alludes to this vice being the active instrument of kindling the fire of Discord, which is of so dangerous a consequence as sometimes to entail ruin, not only on private families, but even upon powerful states.

ENGLISH SYNONYMES.

OBNOXIOUS, OFFENSIVE. Obnoxious, from the intensive syllable *ob* and *noxious*, signifies exceedingly *noxious*, and causing offence, or else liable to offence from others, by reason of its *noxiousness*; *offensive* signifies simply liable to give offence. *Obnoxious* is, therefore, a much more comprehensive term than *offensive*; for an *obnoxious* man both suffers from others, and causes sufferings to others: an *obnoxious* man is one whom others seek to exclude; an *offensive* man may possibly be endured. Gross vices, or particularly odious qualities, make a man *obnoxious*. A man is *obnoxious* to many, and *offensive* to individuals: a man of loose Jacobinical principles will be *obnoxious* to a society of loyalists: a child may make himself *offensive* to his friends.

INSIDE, INTERIOR. The term *inside* may be applied to bodies of any magnitude, small or large; *interior* is peculiarly appropriate to bodies of great magnitude. We may speak of the *inside* of a nutshell, but not of its *interior*: on the other hand, we speak of the *interior* of St. Paul's, or the *interior* of a palace. This difference of application

is not altogether arbitrary; for *inside* literally signifies the side that is inward, but *interior* signifies the space which is more inward than the rest, which is enclosed in an enclosure, consequently cannot be applied to any thing but a large space that is enclosed.—*Crabbe*.

NEWSPAPERS.

THOUGH the public mind must necessarily have derived some advantages from the introduction of printing into England, it requires but little reflection to discover that those advantages were fewer and less important, in the first instance, than they might have been. For a very considerable time the English press produced nothing but elaborate and heavy works, of which the expensiveness rendered the circulation extremely limited, or works, which, though lighter, indeed, and less expensive, appealed so exclusively to the fancy, as to be of but little service in enlarging the knowledge or improving the judgment of their readers. From polemical folios, and from octavos, treating of the "Royal Game of Chess," the "Art of Angling," and the like, it was not likely that the public taste should be improved, or the public information enlarged. In point of fact, in the early days of the existence of the press in England, those who directed it took but little account of its power as an enlightener and guide of the many, but valued it chiefly as an instrument calculated, by its facility in multiplying copies, to put themselves in a condition to comply with Michael Cassio's exhortation—"put money in thy purse." Had the directors of the press, in its early days, alone been concerned, it may be doubted whether it would ever have become the powerful instrument which we now behold it. But from the time of Henry VII. the middle classes had been gradually growing more and more wealthy, and more and more independent in their feelings. They had been balanced against the haughty nobility for the purpose of securing to the crown a monopoly of tyranny; but they went a step farther than the politic Henry had anticipated, and proceeded to assail the tyranny itself, instead of confining its exercise to this or to that party. The whole course of the reign of Henry VIII. was well calculated to foster and to strengthen the newly-born spirit of inquiry. It is true that nothing could exceed the despotism of some of his proceedings, and that it would be difficult to imagine more puerile and unimportant subtleties than some of the moot points which were fiercely argued, and on which the weaker disputants occasionally perilled life and limb. But there was inquiry; and the danger resulting from error, real or imputed, lamentable as it was in all other respects, had, at least, the good effect of sharpening men's intellects, and teaching them that they had ratiocinative powers as well as their rulers. This once done, it was inevitable that, in the course of time, men should reason upon things temporal as well as spiritual; and, when the mind of the millions made itself manifest, the rulers knew that, to the mind they must, in some degree at least, appeal.

The sagacious Elizabeth, that "virgin queen," whose name is still a proverb, and a word to be spoken with love among Englishmen, perceived the power which an appeal to the mind of her subjects would give her; and to her desire to keep alive the zeal, and satisfy the curiosity, of her subjects when England was threatened by the vaunted armada of Spain, we owe the appearance of the first English newspaper. It was called the "English Mer-

curie,"* and contained accounts, authorized by Burleigh and the other ministers, of all the proceedings connected with the advance and repulse of the Spanish fleet. This publication was distributed, in considerable numbers, in all parts of the kingdom, and had the good effect of neutralizing the false reports which the queen's enemies were assiduous in setting about. They were published as events called for them, and not at any regular intervals. Several of them are preserved in the British Museum.

The "English Mercurie" did good service to the queen and her ministers; and there, in all probability, they both supposed and desired that the labour of the press, as a political instructor of the people, would terminate. But the example once set of using the press as a commentator on the events of the day, it was inevitable that sooner or later, the rulers would have printing opponents as well as printing eulogists.

The seed was sown, and the harvest could not but appear. Accordingly, we find, that during the civil war between Charles I. and his parliament, the former em-

ployed Robert Barker, of Newcastle, to issue a newspaper in the royal interest, while Cromwell employed one Christopher Higgins, of Leith, in Scotland, to oppose it by another. The latter was soon discontinued, but afterwards its place was supplied by the "Mercurius Caledonius," which died a natural death after a few numbers. Fanaticism, in point of fact, was so prevalent, that it was scarcely possible for a work of a miscellaneous nature to have much chance of success.

Though several weekly papers were set up in England by private persons, with more or less success, it was not until the reign of Queen Anne that the taste for that kind of reading became sufficiently general to encourage the publication of a daily paper.

In 1724 there were three daily papers, and eighteen published at longer intervals. In 1753 the number of papers annually sold in England, had reached the average of 7,411,757; and seven years later, the number of them increased to 9,404,790; while, in 1792, it had increased to 15,005,760; manifesting a vast increase in the progress of the people, in both intellect and wealth. During the last thirty years, the number of newspapers, and the numbers sold of each of them, have increased almost incredibly; and many of them are conducted with an accuracy, and written in a style so pure, as to make them valuable as standard works of reference.

* Lord Burleigh seems to have borrowed his notion of the "English Mercurie," from the "Gazetta," a Venetian paper, and the first, we believe, that was published in England. In a letter of his to Lord Talbot, dated Oct. 23, 1590, he says, "I pray you esteem my news as those which, in Venice, are fraught in the Gazette:"—a paper which had, doubtless, long enjoyed a reputation, as he refers to it, as it were to something of which every one had heard.—See *Guide to Knowledge*, Vol. I. p. 620.

Literary Review.

88. *Guide to Jewish History.* By A LADY. 12mo. Pp. 209. Yarmouth: Skill. London: Simpkin & Marshall; Harvey & Darton; Hurst.

THIS, apparently, is a record of the principal events in Jewish history, arranged in question and answer. To persons ignorant of the chief occurrences relative to that people, this will prove a very interesting and useful volume.

89. *History of Jamaica.* By a RETIRED MILITARY OFFICER. 12mo. Pp. 315. London: Hurst.

THE insurrection of the negroes in this important island is, doubtless, fresh in the memories of our readers. It took place in 1831; and a more dreadful display of all the baser passions of human nature was seldom witnessed. The present volume details an account of this serious affair, and gives us, likewise, the history of Jamaica; shows us the condition of the country at this moment, and points out to us the prospects that await it. We earnestly recommend it to the perusal of our readers, as giving them much valuable information relative to that colony.

90. *A Steam Voyage down the Danube, with Sketches of Hungary, Wallachia, Servia, Turkey, &c.* By M. J. QUIN, Author of "A Visit to Spain." 2 vols. 12mo. London: Bentley.

MR. QUIN has afforded us much entertainment in these two volumes, which comprise a great deal, and a diversity, of information. Our limits will not suffer us to go very largely into extract, though we wish to give our readers as much substantial knowledge

of foreign regions as we are able, and, at the same time, offer to their notice such works only as are efficient for that important purpose. Of this class is the work before us, the notice of which we reluctantly close with this one quotation, descriptive of the great five-mouthed river, Danube, which runs a course of 1800 miles, and at last falls into the Baltic.

The Danube seemed, near Belgrade, an expanse of waters which would have afforded ample space for the whole British navy. We had scarcely left Semendria behind us, when the river became still wider, resembling, indeed, a vast lake, sufficient to contain all the navies of the world. It was here, in every respect, a truly magnificent object. The more I became acquainted with this noble river, the greater was my astonishment that it was so little known to Europe, and hitherto so rarely made use of for the purposes of commerce. . . . After passing Kubin, we perceived the commencement of several groups of islands, which, however beautiful in themselves, diminish the majestic character the Danube would otherwise have maintained the whole way from Semendria to Moldavia. They occasionally divide the waters into two or three rivers in appearance, none of which, however, can be considered as insignificant. The main current, which runs by the Hungarian bank, retains uniformly much of the general grandeur of the parent flood. These islands are densely wooded with osiers and evergreen shrubs, which afford a safe refuge for water-fowl of every description. Wild ducks and geese frequently rose in clouds one above another in the sky, winging their way towards their island homes. Now and then a solitary eagle sailed through the firmament, directing his course to the mountains, which appeared like pure azure far away on the horizon. As we proceeded among these islands, we could not avoid admiring the picturesque order in which they were disposed; the fresh vernal verdure which every tree, and every leaf, and every blade of grass, exhibited; while the brown tints of the woods and fields in all other quarters, proclaimed the season of the year. This contrast of decay on one side, with the blooming freshness of the islands on the other,—the variety of their forms, their shady inlets, their clusters of magnificent shrubs hung with

flowers that sometimes rivalled the rose, sometimes the strawberry, the snowdrop, the lily, or the blue convolvulus,—the wild beauty of their woods, the deep solitude in which they seemed to be secluded from all the world, interrupted only by the screams or rushing sounds of countless birds hastening to their shores, gave them a most romantic appearance, especially in the golden light of evening, which still lingered around them. The untroubled surface of the Danube reflected the whole canopy of the sky, and gave back, in softened tones, the saffron, ruby, and purple hues of fire which still glowed in the west. The image of the departing sun was lengthened in the waters, when it appeared like a perpendicular column of light. This optical delusion was the more striking, as the part of the Danube in which we had now arrived was, in fact, little better than a series of shallows, through which we were steering our course with the utmost difficulty.

91. *The Comprehensive Representative Chart of England and Wales.* By the Author of the "Chronological Chart of Inventions and Discoveries." London: Bagster.

A VERY serviceable sheet of reference for the politician and historian. It appears to be taken from the census of 1831, the Reform Act of 1833, Parliamentary returns, official documents, and other sources of authentic information.

NOTICES TO CORRESPONDENTS.

We are obliged to "Civis Norvici;" his remarks shall be attended to in the next issue.

"S. N." will find it apply to both *Mine-ralogy and Geology*.

"X. X." is in error.

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PINNOCK'S
GUIDE TO KNOWLEDGE.

No. CX II.

SATURDAY, SEPTEMBER 12, 1835.

PRICE
ONE PENNY



BIOGRAPHY OF SIR THOMAS STAMFORD RAFFLES, LL.D.

(From a Monument, by Chantrey, in Westminster Abbey.)

THIS individual, who became eminent from his legislative services in a few of the colonies of this empire, was the son of Benjamin Raffles, the captain of a merchant vessel in the West India trade, and born at sea, on board the ship *Anne*, while laying off Port Morant, in Jamaica. This took place on the 6th of July, in the year 1781. When sufficiently advanced in years to be left under the guardianship of a third person, his father placed him under the care of Dr. Anderson, of Ilammersmith, with

whom he made some progress in study, and continued till his removal to the India House, in which establishment young Raffles took upon himself the duties of one of the clerkships. In 1805, the interest of Mr. Secretary Ramsay procured for our hero the situation of assistant-secretary to the government of Pulo Penang, in the straits of Malacca; for which place he somewhat reluctantly set out in company with the newly-appointed governor Dundas. While remaining here,

Raffles assiduously applied himself to the study of the Malay language, in order to fit himself the better for the duties that devolved on him. His perseverance rendering him tolerably proficient, he was rewarded with the appointment of Malay translator to the government, and advanced still further, shortly after, about 1807, by being nominated secretary to the council, and registrar of the Recorder's court. The effect of the climate, however, on his constitution, interrupted his pursuits, and at length, considerable indisposition compelled him to retire to Malacca. Becoming recruited, his reputation procured for him, in 1810, the appointment of agent of the governor-general of the Malay states. But Mr. Raffles did not continue long in this office, for the reduction of Batavia and Java, in the year following, opened to him the appointment of lieu-

tenant-governor of the latter place, which he accepted. For five years he remained in this office, during which period, the hostilities with the native chiefs, who had been some time interrupting the tranquillity of the island, were brought to a successful and advantageous termination. In 1816, after resigning his arduous post, he set out on his return for England, bringing with him a Javanese prince, and a most extensive collection of specimens of the productions, and many other curiosities, of the Eastern Archipelago. To this was added, in the following year, his History of Java, which was published in two thick quarto volumes, illustrated with a few plates. His services being highly appreciated by the reigning administration in England, in 1817, Mr. Raffles was nominated to the residency of Bencoolen, in Sumatra,

with the honour of knighthood, and likewise to the lieutenant-governorship of Fort Marlborough. In this latter government so many abuses had crept in, and so many fresh regulations, adapted to recent circumstances, were required, that Sir Stamford Raffles found it no trifling undertaking. By great exertion, however, he effected great and numerous improvements, and likewise did much towards carrying into effect the abolition of slavery. He also distinguished himself, by his arrangements with the Dutch commissioners, in the interest of the sultan of Palembang, and by the occupation of the island of Singapore. On his last visit to the island, in 1823, he gave evidence of his earnestness in advancing the literature, and improving the state of the colony over which he governed, by laying the foundation of the Anglo-Chinese College; but, in the following year, the impaired state of his constitution robbed this quarter of the globe of his valuable energies, by compelling him to return to Europe. With this view, he embarked on board the *Fame*, on the 2d of February, 1824, but a fire breaking out in the ship on the evening of the same day, the vessel and its contents, including property, belonging to Sir Stamford Raffles, estimated at nearly 30,000*l.* with many valuable papers of his, were destroyed. The crew and passengers, however, saved their lives, with much difficulty, and after experiencing many dangers and privations, were landed in a state of utter destitution, about fifteen miles from Bencoolen. Sir Thomas Raffles gives a long account of this unfortunate calamity in a letter to a friend of his in England, dated the day after the accident, and which our limits will not suffer us to transcribe. In April, his family again embarked for this country, on board the *Mariner*, in which they passed a pleasant voyage, and were landed in London, in August: Sir Thomas Stamford Raffles, however, survived his return not quite two years, dying of an apoplectic attack, in July, 1826.

Of the private character of this eminent statesman, we know but little; and of the works he has left behind him a Memoir of Singapore, in MS. is the only one, additional to his History of Java, before alluded to. He, however, was the acknowledged editor of Finlaysan's Mission to Siam, 8vo.; and Dr. Leyden's Malay Annals. A monument was erected to his memory, by Chantrey, in Westminster Abbey, an engraving of which our artist has given our readers, at the head of this biography.

ON THE LATIN LANGUAGE.

(Concluded from p. 294.)

WHILE the Roman empire was united at home, and powerful abroad, the Romans compelled the natives of all the countries they conquered to be ruled by the laws of the empire; and as those laws were invariably administered in Latin, that language, then in its purity and perfection, was more or less cultivated by every state which owned the Roman power. Moreover, the learned of all countries were anxious to read the beautiful productions of Terence and Virgil, Cicero and Cæsar, in the original. The consequence was, that having learned Latin while it was in its purity, and being removed from the sphere of those causes which deteriorated it at the fountain head, the natives of distant countries preserved the Latin language, as they did the Roman law, in its purity, long after the effeminated and degraded owners of it had lost it, and

even all desire to possess it. After the fall of the Roman empire, the imperial law was adopted in Germany; and with the law of fallen Rome, the language also was studied by the descendants of those whom Rome, in the days of her prosperity and pride, had contemptuously called barbarians. The Roman pontiffs, too, in their desire to depress the Greek Church, did all in their power to depress the Greek language; and as the business, the learning, and even the devotion of papacy, made the Latin their medium, that language became again a living and cultivated language wherever the papal power became established. So well and so fully did the profound policy of the popes succeed, that Latin was cultivated all over Europe, to the utter exclusion of Greek; and even in England, where the latter language is now so profoundly understood, and so generally taught and studied, Erasmus was driven from the University of Oxford for having taught Greek, which the papists of that day pronounced to be a dangerous innovation, calculated only to increase and propagate heresy. This was so lately as the reign of our eighth Henry, so long had the papal policy on this point subsisted in undiminished force. Henry's youngest daughter, however, our own famous Queen Elizabeth, not only encouraged the study of Greek, but was herself (as also were her cousin, the unfortunate queen of Scots, and Lady Jane Grey, who was executed in the reign of Elizabeth's sister, Mary of England) a very good Greek scholar; and, at the present time, the English are considered to be decidedly the best Greek scholars in the world.

To return to the Latin. Its adoption by foreign nations was so extensive, that it was no uncommon thing to be accosted by German or Polish peasants in the language of Virgil and Julius Cæsar. In England, and in other nations, it was the only language in which the learned would deign to write; and thus, all who aimed at being learned themselves, or reaping any advantage from the learning of others, were compelled to study Latin with as much assiduity as, or, perhaps, with even more assiduity than, they studied their vernacular tongue.

In our sketch of the English language, we have shown to what an extent this custom obtained in our own country; and the fact of its having been equally prevalent in other countries, is sufficiently shown by the fact that their very peasantry were Latin scholars. How, indeed, could the Latin fail to become popular when a knowledge of it was absolutely necessary to all who would rise one step above the very lowest herd, when the language of the learned was Latin, when the language of the law was Latin, and when even the public services of religion were performed in Latin? Perhaps nothing has so essentially tended to hand down to us a love and knowledge of pure Latinity as the fact of the learned having made it the medium of imparting their wit and wisdom, their speculations, and their science. Puffendorff, Grotius, Erasmus, Boerhaave, Bacon, and Newton, wrote almost wholly in Latin; and thus, while our early English writers have become almost unintelligible, from their language being rendered obsolete by the improvement of philologists, and by the innovations of fashion; Cicero, Cæsar, Horace, Virgil, and Juvenal,* speak the language of our own times. Their language is now fixed and unalterable; and he who wishes to acquire

* Juvenal lived in the reigns of Nero, Domitian, and Trajan; but though he lived after the Augustan age, he wrote with a degree of purity which would by no means have disgraced it.

a perfect mastery over a language which will fade only when the world itself is destroyed, must give his days and nights to the writers of the Augustan age. But he must not read them merely for the information he may derive from them, or in order to furnish himself with a copious store of their phraseology, he must also *analyse their style*; he must not only mark *what words* they used, but also *how they used them*. Our own Milton, Lowth, and Addison, have shown us how much of the ancient beauty of style may be acquired by diligent and attentive study; and he who would attain to the envied honour of having his own name connected with theirs, must imitate them in their patient study, their attentive observation, and, above all, their enthusiastic admiration of the classic genius of Rome.

To render the study of this beautiful language as easy as possible, the Editor, after much labour and experience, has prepared a work, which he hopes will be found replete with practical information, and which, very shortly, will be before the public.

THE GNU.

(*Antelope Gnu.*)

THE gnu is found in small herds, on the vast plains of Southern Africa, where, in the midst of a world of antelopes, he spends his time in grazing the long grass and succulent vegetation of those regions. He is considered by zoologists to be a species of *antelope*, to which he bears an unquestionable relation, in the structure of his horns, the general form of his body, &c. but he nevertheless possesses, as we shall presently see, so many distinguishing characteristics of his own, that he deserves to be separated from the immense family with which he is at present associated, and made to stand as the representative of a new *genus*. The gnus, of which there are three species: 1, the one under consideration; 2, the *kokoon*, (*A. taurina*, BURCHELL,) of a larger size than the gnu, but similar to it in form, and although inhabiting the same localities, never associating with it; and 3, the *brindled gnu*, (*A. gorgon*, HAMILTON SMITH,) a very distinct species from either of the preceding, but known only by a stuffed specimen in the Museum of the London Missionary Society, which was brought from the countries near the source of the Orange river.

Gnus are distinguished chiefly by their horns, which are possessed by both sexes; and also by the singular form of the muzzle, which differs from that of all the antelopes, and closely resembles the snout, nostrils, and lips of an ox. The horns arise by two broad bases, which spread over and cover the forehead in precisely the same way as in the musk ox; this solid helmet is then drawn out on either side into two strong smooth black horns, which bending downwards and forwards, become quite round, and then turning upwards to a height equal to their descent, terminate in a blunt hard point. The head is so heavily and squarely formed that it hardly seems to belong to the graceful body and limbs, and might by Buffon have been pronounced an incongruous deformity; but avoiding such proud and blasphemous ignorance, let us remember that "God's thoughts are not as our thoughts," and that where a French infidel might see, as in the case of the "*miserable*" woodpecker, much to amend, HE beholds

nothing in creation, which HE might not again pronounce to be "very good." In the case before us, an animal has been created, who with the fleetness of the antelope, possesses the defensive weapons of the ponderous buffalo, and these two opposite qualifications have been combined in such perfection, that the animal's pleasure and safety are equally and permanently secured. The nostrils are large, and covered by a fold of the skin, which being under the command of the animal, answers all the purposes of a valve, to defend the olfactory organs against the ingress of those particles of dust, which the slightest atmospheric disturbance wafts in clouds from the shifting surface of the desert. The females have two mammae, in which they differ from many of the antelopes, which have four. The neck is decorated with a fine flowing mane, and the throat with a stiff-haired beard. A small dewlap hangs from the breast; and the tail is loose and hairy, as in the horse.

In the species which we have figured, the common gnu, the characters which we have thus described, as belonging equally to himself and his congeners, are modified, and the species distinguished, by the following peculiarities. The fur is soft, and of a rich brown; the tail reaches to the hoof joint, brown above, and white beneath; the neck with a plentiful black mane; and the forehead with a line of hair up its centre; the feet and legs neatly formed, and of great elasticity. The hind quarter for lightness, strength, and beauty of outline, is unequalled in the animal kingdom. They are about the size of a full grown ass, and said, by travellers, so closely to resemble a small horse, both in pace and form, that when seen at a distance flying over the plains of South Africa, they might be readily mistaken for a troop of the wild zebras and quaggas, which inhabit the same localities, if their dark and uniform colour, and the circumstance of their always running in lines one behind the other, did not distinguish them.

The following particulars, quoted in "the Menageries," are from the pen of that accomplished traveller and gentleman, the late Mr. Pringle, who had long and repeated opportunities of studying the animals of Southern Africa, in their native haunts:—

"The curious animal called *gnu*, by the Hottentots, and *wilde beest*, (*i. e.* wild ox,) by the Dutch colonists, was an inhabitant of the mountains adjoining the Scottish settlement at Bavian's river, and I had therefore opportunities of very frequently seeing it both singly, and in small herds. Though usually, and *perhaps correctly*, by naturalists ranked among the antelope race, it appears to form evidently one of those intermediate links, which connect, as it were, the various tribes of animals in a harmonious system in the beautiful arrangement of nature. As the *hyæna* dog, or '*wilde hond*,' of South Africa connects the dog and wolf tribe with that of the hyæna, in like manner does the gnu form a graceful link between the buffalo and the antelope. Possessing the distinct features which, according to naturalists, are peculiar to the latter tribe, the gnu exhibits at the same time in his general aspect, figure, motions, and even the texture and taste of his flesh, qualities which partake very strongly of the bovine character. Among other peculiarities, I observed, that, like the buffalo and the ox, he is strangely affected by the sight of scarlet; and it was one of our amusements, when approaching these animals, to hoist a red handkerchief on a pole, and to observe them caper about, lashing their flanks with their long tails, and tearing up the ground with their hoofs, as if they were violently excited, and ready to rush down upon us; and then all at once, when we were about to

THE GNU. (*Antelope Gnu.*)

fire upon them, to see them bound away, and again go pawing round us at a safer distance. When wounded, they are reported to be sometimes rather dangerous to the huntsman; but though we shot several at different times, I never witnessed any instance of this. On one occasion, a young one, apparently only a week or two old, whose mother had been shot, followed the huntsman home, and I attempted to rear it on cow's milk. In a few days it appeared quite as tame as a common calf, and seemed to be thriving; but afterwards, from some unknown cause, it sickened and died. I heard, however, of more than one instance in that part of the colony, where the gnu, thus caught young, had been reared with the domestic cattle, and had become so tame as to go regularly out to pasture with the herds, without exhibiting any inclination to resume its natural freedom; but in consequence of a tendency, which farmers say they evinced, to catch, and to communicate to the cattle, a dangerous infection, the practice of rearing them as curiosities has been abandoned. I know not if this imputation be correct, but it is true that infectious disorders do occasionally prevail to a most destructive extent among the wild as well as the domesticated animals in South Africa, and especially among the tribes of larger antelopes."

Mr. Steedman, the South Africa traveller, says that they generally retreat when pursued; but, if wounded, they become very furious, as he had frequent opportunities of witnessing; and on one occasion, was himself attacked, while crossing the plains, by an old male gnu, which had been driven out of the herd. The animal

approached with great violence;—on being fired at, he stumbled; but, recovering himself, came on with redoubled fury, snorting and tearing up the ground; and had it not been for the timely assistance of a servant, who was on the spot, it might have proved an unpleasant adventure.

The late Baron Cuvier has shown that the gnu was the animal of which the ancients related so many fables, under the name of *Katoblepas*, or *Katoblepsa*, and which, from the time of *Ælian*, was not known in Europe till about the end of the last century.

The drawings for our engraving were made from some fine specimens in the Surrey Zoological Gardens.

PROGRESS OF KNOWLEDGE AND THE ARTS.

WE are a little inconsistent, as well as incorrect, in speaking of past ages as "ancient times," and in attributing to our progenitors a mental superiority over ourselves; for the early times were the youth of our world, and in them the human mind also was in its infancy. Dazzled by the glorious works of a few great men, we erroneously extol the entire nations in which they were rare and noble exceptions,—day-stars gleaming resplendently amid the general gloom. Unlike every other species of animals, mankind are continually progressing; and as the faculty of speech enables men to communicate their ideas to each other, so the art of printing enables them to transmit their acquired knowledge from generation to generation, and from age to

age. The eagles of a thousand years ago winged as bold and as rapid a flight as an eagle does at the present hour, and the lions which roar for their prey in the African deserts, are in nowise stronger or more ferocious than those were into whose den the infuriated tyrant ordered the holy prophet to be cast. But every year has progressed in knowledge and in power with every passing year, and science has been perpetually extending her dominion over nature, animate and inanimate. Nations abounding in wealth, in comforts, and in luxuries, and peopled by civilized millions, occupy tracts of earth where, of old, the beasts of prey alone abode. The ever active mind, treasuring up the wisdom of preceding ages, and making it the groundwork of new speculations, has been continually improving; and every generation has thus become wiser, wealthier, and happier, than its immediate predecessor. How far this improvement is even yet to extend, in our own country, it is impossible to imagine, for the most sublime discoveries and improvements are the fruit of late years. Diffused as knowledge is among the very humblest of our fellow-subjects, genius is perpetually manifesting itself in all classes, from the highest to the lowest. Peers occasionally employ themselves in recording the events of our own country, or of foreign lands; a ploughman has immortalized himself by his poetry; and, to a village barber, we owe that improvement in machinery which has enabled us to compete with the whole world in our cotton manufactures. In England, almost exclusively, the humbler classes are made sharers with their superiors of the treasures of the mind; the natural consequence of which is, that while, as a nation, we are the wealthiest in the world, so we are, individually, the most moral, happy, and free. Greece had her poets and her orators, and so had Rome; and the master-spirits of both nations were master-spirits indeed, and journeyed as near to literary excellence in their respective pursuits, perhaps, as it is permitted for man to advance. But the multitude were ignorant, and plunged in the most frightful and degrading superstition. When Rome, the conqueror of Greece, became, in her turn, the prey of the spoiler; when the barbarous hordes of the north polluted the palaces of the Cæsars, and made havoc their sport, and destruction their employment; the little of learning that survived retired into the still solitude of the monastic cell. For ages afterwards, learning was a sealed book to the multitude; for though Rome had perished, her nervous and manly language survived her, and was the universal language of literary men. While science spoke in a tongue which only a few men understood, the great mass of mankind were, necessarily, deaf to her inviting call; and even when the wise of various nations condescended to write in their vernacular tongues, their effusions were of so abstruse a nature, and couched in such a mystical and puzzling verbiage, that they were read by very few, and understood by still fewer. But now every hamlet, and almost every cottage, can boast its books and its readers; and every new year affords new proofs of the power of knowledge in softening men's manners, and increasing their comforts and enjoyments. While the very humblest classes are thus improved in their mental and social condition, it would be lamentable indeed did the middle and upper classes fail to make proportionate advances. Happily they do not; and the improved quality, as well as the increased quantity, of our general literature, is at once a cause and an effect of the general desire for improvement. In our various essays, we have endeavoured so to simplify

the elements of science and natural philosophy, as to render the acquisition of them at once easy and delightful to our young readers. And though we only give the elements of the sciences, yet it is in our power to teach many things of which the Aristotles and Plinys of the old time, and the Newtons and Harveys of a more recent period, were unaware: so vast have been the improvements which all sciences have been perpetually undergoing!

In studying natural philosophy, the young reader will, at every step, feel his love and his admiration of the great and eternal Creator of all things extended, enlivened, and strengthened; and thus, in improving his mind, he will greatly benefit his heart also.

Some few of our essays have been upon subjects which may, at first sight, seem too abstruse for the attention of youth; but yet simplified as they are, they will not be found difficult; and, in future years, when more elaborate and technical treatises are referred to, the elementary knowledge derived from this work in early youth, will be found an assistance of no small value and extent. The editor, likewise, feels persuaded that he cannot more usefully labour than by presenting the juvenile public with useful and important knowledge, in an easy and attractive form, particularly *Natural Philosophy*, which is not useful to any one class or profession alone,—all are concerned in it. It is identified with our most rational curiosity, and inseparably interwoven with all that we possess beyond the rude hut, and the precarious prey of the savage of the woods; and no youth's education can be considered to be even tolerably good, who is not familiar with, at least, the ELEMENTS of it, and of the sciences generally.

CICERO is thus characterised by Dr. Blair:—"In all his orations his art is conspicuous; he begins commonly with a regular exordium, and with much address prepossesses the hearers, and studies to gain their affections. His method is clear, and his arguments are arranged with exact propriety; in a superior clearness of method, he has an advantage over Demosthenes; every thing appears in its proper place; he never tries to move till he has attempted to convince, and in moving, particularly the softer passions, he is highly successful. No one ever knew the force of words better than Cicero; he rolls them along with the greatest beauty and magnificence, and, in the structure of his sentences, is eminently curious and exact. He is always full and flowing, never abrupt: he amplifies every thing; yet, though his manner is generally diffuse, it is often happily varied and accommodated to the subject. When an important public object roused his mind, and demanded indignation and force, he departs considerably from that loose and declamatory manner to which he at other times is addicted, and becomes very forcible and vehement. This great orator, however, is not without his defects. In most of his orations there is too much art, even carried to a degree of ostentation. He seems often desirous of obtaining admiration rather than of operating conviction; he is sometimes, therefore, showy rather than solid, and diffuse where he ought to have been urgent. His sentences are always round and sonorous: they cannot be accused of monotony, since they possess variety of cadence; but, from too great a fondness for magnificence, he is on some

occasions deficient in strength. Though the services which he had performed to his country were very considerable, yet he is too much his own panegyrist. Ancient manners, which imposed fewer restraints on the side of decorum, may, in some degree, excuse, but cannot entirely justify, his vanity."

ETHICS AND THEOLOGY.—The sciences of ethics and theology stand at the head of such as dignify a rational being. Critical and polite literature is not only valuable for the assistance it affords in the pursuit of those studies, but for the pure and elevated pleasures it is capable of yielding as an ultimate object. The study of nature, under her various forms, which cannot but be peculiarly interesting to one who aspires to an acquaintance with the Author of nature, has in it, likewise, every quality which can render a pursuit delightful.—*Aikin.*

THE PANACEA OF THE BRAZILIANS.—Walking with a friend one day, we met a man who was labouring under erysipelis; he was asked if he had tried some particular medicines which were named, and he said he had not, because he had tried the only effectual cure in the world, and as that had not succeeded, he gave up all the rest in despair. Curious to know what it was, I inquired, and was informed it was the blood of a black cock, taken internally, and smeared over the part affected. The man died some time after, obstinately refusing to try any other remedy.

The last resort of a Brazilian, when all other things fail, is the blood of a black cock, which is a remedy for every disease, but particularly for erysipelis.—*Walsh.*

ENVY.

THIS most vile passion may be defined as a detestation of what we desire, and a desire of what other persons have: for however paradoxical that definition may at first sight appear, it is most unquestionable that the envious man hates in another those very qualities or possessions which he vainly desires for himself.

So detestable is this passion, and so malignant an aspect does it invariably give to the miserable being whose breast gives shelter to it, that a certain destructive power has been attributed to what was emphatically called an "evil eye;"* the very glance of the envious being supposed to have the power of blasting the happiness and checking the prosperity of those upon whom it lights.

Great as the detestation must necessarily be which every well-constituted mind must feel for this odious passion, it is not possible to wish or to desire any severer or more appropriate punishment for the envious man than the stings of the serpent which he nourishes; the pangs inflicted by that quenchless flame which he feeds within his own restless and agitated bosom, for his own perpetual and merited chastisement. Whatever delights or benefits his fellows is to him a whip of scorpions; a successful enterprise, though it diffuses gladness and comfort upon others, adds to his petulant dissatisfaction; and the buoyant delight of youth, and the cheerful smile of innocence, are beheld by him with a sardonic sneer upon

his lips, and gall and bitterness in his heart. Whatever causes pleasure to others is a source of pain to the envious man; and that which he possesses, is worthless in his sight, because something else is out of his reach. The pleasures of the envious man are even more fiendish than his pains.

Has one, possessed of uncommon merit, ruined himself in a project, the accomplishment of which would have been honourable to his country, and serviceable to mankind in general? The envious man's truly despicable heart bounds with all the satisfaction of which it is capable! Not that he doubts the good intentions of the projector; not that he feels any doubt of the good of which the project, if successful, would have been productive; but that success would have blazoned and rewarded superior ability, and *that*, forsooth! would be both injurious and offensive to him. He would be delighted to confer a benefit upon society, simply because his doing so would benefit himself, and tend to exalt him in the eyes of others; but not for worlds would he see that benefit conferred upon society by any other than himself, though for want of it famine and pestilence should desolate his native land.

It is perhaps impossible to root out this deadly disposition from a heart of which it has obtained complete possession, or a consideration of the pitiable condition of one who thus draws poison from the nutriment of others, would be an almost infallible remedy for this disease of the soul. Nothing but a plague or a famine can render such a person completely at ease; for in the ordinary state of things there cannot but be too much happiness in the world for his comfort. In one, he envys the gifts of nature; in another, those of fortune; and in a third, upon whom poverty and deformity have exhausted their rage, he is provoked by an equanimity of temper, and patience of sufferings, which are the more annoying to him for being so directly opposed to his own perpetual irritation. Nothing is too high or too low to excite his rancorous and self-tormenting hatred. He has a national as well as an individual envy; and he does not even exclude the brute creation from his jaundiced meditations. The glowing and perennial sun, and the fragrant and delicious groves of the East, furnish him in bad weather with abundant matter for querulous soliloquy; while on the other hand, in July, he imputes partiality to nature, and grudges the Exquimaux the frost and snow of bleak and inhospitable Labrador. Nay, such is the perpetual and inexhaustible discontent of persons of this nature, that in wet weather the very ducks are not safe from their jealousy! How truly wretched must that man be whose fellow-creatures, the elements, and even the brute creation, are everlastingly working him misery. Every action of those with whom he is acquainted ministers to his misery, unless indeed it produces theirs, and then the unhappy wretch experiences a delight more diabolical and terrible even than his vexation. Births, marriages, nay, even deaths, if they increase the fortune of survivors are real misfortunes to the envious man; and any great or good achievement, even of a person whom he has never seen, renders him miserable in exact proportion to the notoriety and applause it obtains. He is ever wretched except when all around him are wretched, and finds his happiness in the lack of it in his neighbours.

To call such a temper *merely* a misfortune, although the possessor of it is truly unfortunate, is to forget the exceeding wickedness of it. We are commanded by

* "I know him by the evil eye
That adds his envious treachery."—BYRON.

God to live in brotherly love one among another, whereas the envious man hates all around him; we are commanded to have charity, and the heart of the envious man is full of bitterness and evil thoughts; we are commanded to forgive them who trespass against us, but the envious man burns with malice towards those who do not even know his person, and who offend him only by a laudable and successful application of the talents with which nature or education has endowed them.

This disposition is unfortunately so common, in a greater or less degree, that every exertion is necessary to correct it. Common sense ought to tell us that the prosperity of our neighbours ought not to wound us; and gratitude to God, for the benefits which we do enjoy, ought to reconcile us to the privation of those we do not. The contented are ever cheerful; the envious as constantly agitated in mind and attenuated in body. Envy corrupts the heart, sours the temper, deforms the visage, and enfeebles the body; renders us indifferent to the pleasures we have at command, and desirous only of those things which are beyond our reach; it makes us miserable in ourselves, hateful to our neighbours, and offensive to God; and thus our own happiness of mind, and health of

body, and our duty to our neighbour, as well as to our Creator, alike imperatively command us to eschew the wickedness of envy, and to live contented with what we have, and not ambitious of what we have not.

ENVY is represented, among painters, by the figure of an ugly woman, clad in black and blue tarnished drapery, and crowned with serpents. Her right hand rests upon the head of an Hydra, and a viper is biting her left breast, which is bare. Her age and ugliness signify the deformity of this vice; and the discoloured drapery alludes to the yileness of it. The serpents, by which her head is surrounded, signify the evil thoughts which an envious person always entertains of others. The viper, biting her left breast, denotes the rage and torment that perpetually occupy the breasts of those who envy the prosperity of their neighbours. The right hand, resting on the head of the Hydra, indicates the horrible deformity of this malignant disposition; as envy may be said to resemble that monster in its infectious quality. The poets relate, that when one head of the Hydra is cut off, its place is supplied by another; and thus the more the power of Virtue is exerted in suppressing Envy, the more is this vice enraged against its opponent.

Literary Review.

92. *Scenes and Characteristics of Hindostan, with Sketches of Anglo-Indian Society.* By EMMA ROBERTS, Author of "Memoirs of the Rival Houses of York and Lancaster," &c. 3 vols. 12mo. London: Longman & Co.; Allen.

THE peninsula of Hindostan, the men, and manners, and other valuable and interesting circumstances relative to that rich and extensive region, are depicted in these volumes with great truth, pleasantry, and accuracy. The fair authoress, by her observations, will hasten the correction of those many erroneous and golden opinions of India and its nabobs, which hitherto have been so extensively disseminated among us, and which have also met such general belief. The topics alluded to are numerous, and the style of writing in which they are conveyed so agreeable, as to insure for the work great popularity. The domestic scenes are very amusing, and the picture of the country beautiful and interesting; we will subjoin an extract, describing a view of the Indian landscape at night.

It is only when night spreads its mysterious spell over the scene, that an Indian landscape, during the dry weather, can captivate the eye, however luxuriant the foliage may be, and that never appears to be scorched by the sun. However romantic the temples, more than half their charm is lost when they spring from an arid soil; but starlight or moonlight can invest them with a divine aspect: the barren sands become soft and silvery; and the parched desert, cool and refreshed, cheats the vision with a semblance of verdure. To a *dak* traveller, the changes produced by the approach of night are particularly striking: his eyes have been wearied for many hours with dust and glare, and he hails the first shadows cast by the setting sun with joy. So extraordinary is the illusion, that it would not be difficult to fancy that he was entering upon some new country; some enchanting paradise hitherto undiscovered, whence all unsightly things have been banished, or where they never found a place. An Indian night is superb; excepting at

intervals during the rains, it is always light enough to distinguish objects at a considerable distance; the heavens shine with stars, and the moonlight descends in floods. Beneath the midnight planetary beam, the most simple and unpretending building is decked with beauty; the mud hut of some poor native, with its coarse drapery of climbing gourds, shews like a fairy bower, and the barest sand-bank, topped with the wretched habitations of humble villagers, assumes a romantic appearance, outlined against the dark blue sky spangled with innumerable stars. The stately elephant never attains so grand and imposing an attitude as at night; pacing singly over the plain, his crimson trappings gleaming in the starlight, he is far more majestic than under any other circumstances; and when three or four are seen in a bivouac together, they look like masses of black marble; some huge monumental effigy sacred to the departed genii of the land. A well, a *kafila*, with its sleeping bullocks stretching their weary limbs around their burdens, or an express camel suddenly emerging from the shade, and striding again into darkness, fill the mind with pleasing images. Daylight dissolves the spell; squalid objects reappear; dust and dilapidation abound amid the dwellings of man; the too glorious sunshine envelopes the distant scene in a dazzling veil, and the only resource is to shut up the doors of the palanquin, and endeavour to bear the heat and dust with patience.

Notwithstanding all the charms and luxuries of this climate, there are times when the traveller must feel certain inconveniences. Among these is the difficulty of procuring medical assistance when needed. Our author thus relates it:—

The impossibility of procuring prompt medical aid, in passing through the country between the European stations, forms a cruel aggravation to the distress of the companions of those who may be taken ill upon a journey. A newly-married bride embarked with her husband, who belonged to the civil service of the Company, on board a budgerow, with the intent to proceed to Palma, where he had received an appointment. The bridegroom, attacked by illness upon the river, while at a considerable distance from any European dwelling, languished for a few hours, and then expired. The servants endeavoured to persuade the sorrowing widow to permit them to land the body, and have it interred in the jungle; but to this she

would not consent; and immediately betaking themselves to the baggage-boat, they left her alone with the corpse. Instead of proceeding on a voyage, whose object had been defeated by the death of the principal person of the party, it was deemed advisable to turn the head of the boat round, and go down the river. The wind unfortunately was adverse, and, notwithstanding the strength of the current, the vessel made little progress. Imagination cannot picture any thing more horrible than the office which devolved upon one who remained faithful even in death. The atmosphere soon became so offensive as scarcely to be endurable; the body decayed rapidly; the heat was excessive, and the object for which so much misery had been braved seemed unattainable. No less devoted heart could have hoped to secure the rites of christian burial for the already putrid corpse, yet did this young creature, who, until her melancholy loss, had known hardship and sorrow only by name, resolutely persevere in this dreadful duty. At length, about eight o'clock in the morning of the third day, the boat approached an European dwelling. Upon the first communication with the shore, the inhabitants were apprised that a lady had arrived with the dead body of her husband, and they immediately hastened to the spot, to offer her all the consolation and assistance in their power. The master of the house took the corpse under his own charge, and giving the widow over to the care of his wife, issued the necessary orders concerning the interment. It was with some difficulty that the remains could be placed in the coffin hastily prepared for their reception; but it was accomplished at last, and the sad ceremonies proceeded with those decent solemnities which it had cost so much suffering to obtain.

With this we conclude.

NOTICES TO CORRESPONDENTS.

"N. M." in our next.

To "φίλο" we reply, No.

"S. S.'s" inquiries have no reference to literature or science, therefore we cannot attend to them.

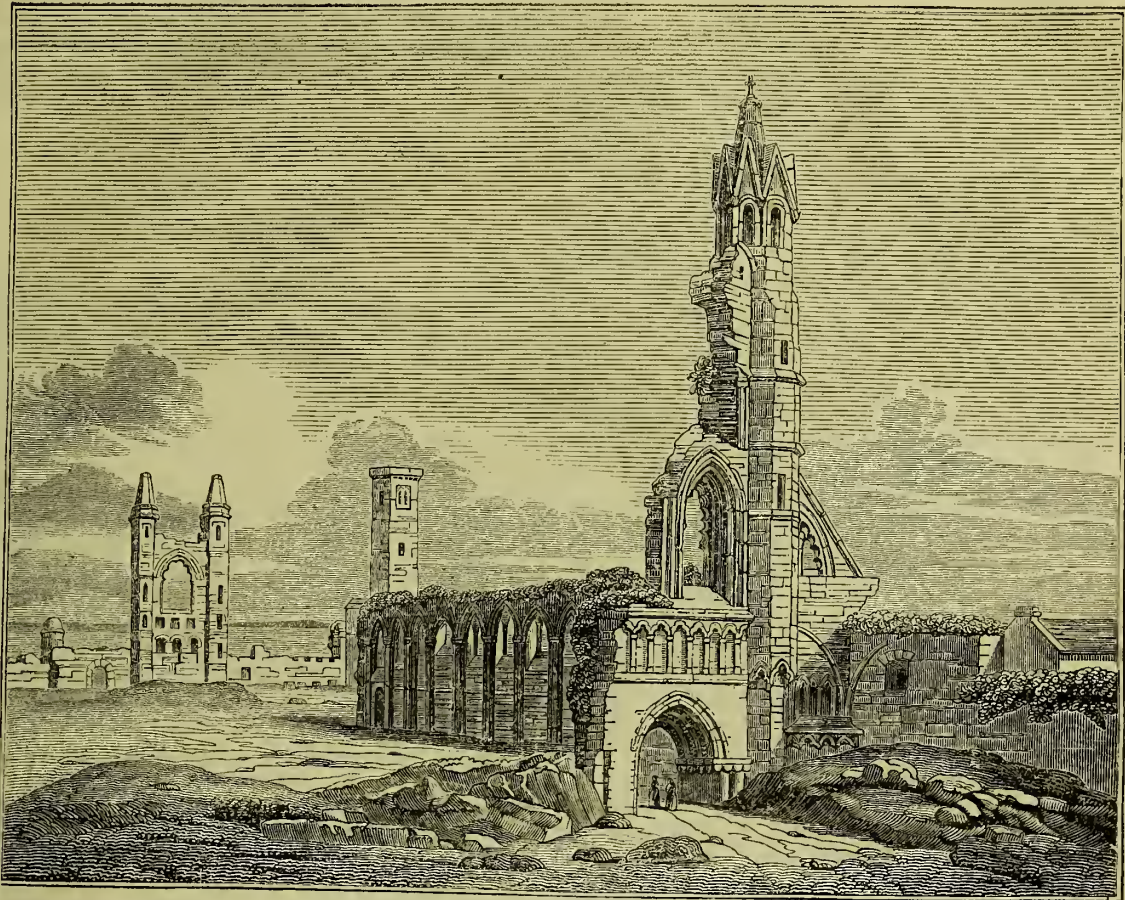
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[PINNOCK'S]
GUIDE TO KNOWLEDGE.

No. CXCVI.]

SATURDAY, OCTOBER 3, 1835.

PRICE
ONE PENNY



RUINS OF THE CATHEDRAL OF ST. ANDREW'S.

It has ever been the source of regret to the thinking mind that few great and beneficial changes have been brought about, either in government or religion, without such political convulsions as have produced irreparable mischief under pretence of effecting good.

Instances to prove the truth of this observation, abound in the history of the Reformation in Scotland. The errors of Popery, and the malpractices of many of its clergy and religious orders, called loudly for reform, but the noble cathedrals, the venerable churches and monasteries, which fell beneath the infuriated zeal of the vulgar, were ornaments to the land, which cannot be restored, and which might have served as places for a purer worship, instead of being levelled with the ground.

Among the melancholy mementos of this unhappy time, the ruins of the magnificent Cathedral of St. Andrews, in Fifeshire, is one of the most conspicuous. Of this once noble pile nothing remains but fragments of the east and west ends, as represented in the Engraving, the south wall of the choir, and a wall at right angles with the choir, pro-

bably part of the south transept. The rest was destroyed by the sacrilegious followers of Knox.

The west end consists of a large gate with a pointed arch, called the Golden Gate, over which is a series of arches, and above them was a large window. On each side was a polygonal tower crowned with a conical top, but that on the north side is gone. The east end has also two turrets, with pointed tops; between these are three windows below and one large one above. In the south wall is a range of windows with pointed arches.

At the east end is the chapel of St. Regulus, with a square tower, one hundred and six feet high. The body of the chapel is entire, but the aisles are demolished. The arches of the doors and windows, some of which contain more than a semicircle, prove the high antiquity of this edifice.

From tradition only do we learn the origin of this chapel, and no great reliance is to be placed on such improbable legends.

St. Regulus, by some called St. Rule, a Greek of

Achaia, was warned by a vision to leave his native country, and visit Albion, and to take with him the arm bone, three fingers, and three toes, of St. Andrew. He obeyed; and setting sail with his companions, after being grievously tempest-tossed, was, in 370, shipwrecked on the coast of Otholania, in the territory of Hergustus, king of the Picts. The monarch hearing of the arrival of the strangers and their precious relics, gave orders for their reception, presented the saint with his own palace, and built near it the church which still bears the name of Regulus.

This improbable story was no doubt believed by the ignorant and superstitious of former days, but however ancient this edifice may be, it has evidently been built long since the time of Hergustus, if such a monarch ever existed. The cathedral was begun in 1161, and was one hundred and fifty-seven years in building.

The ancient city of St. Andrews, formerly called Mucross, Kibrymont, and Kibrule, stands on a bay of the German Ocean. It was once of much greater extent than it is at present, but there are still many relics of its former grandeur.

St. Andrew's was made a bishopric as early as A.D. 518, and erected into an archbishopric by Pius IV. It

has now only one parish church, and two chapels. The church of the Holy Trinity is an ancient and stately edifice, with a handsome spire.

In the body of the church is a handsome monument of white marble, erected to the memory of Archbishop Sharpe, who was assassinated in 1679 by some of the zealous Reformers of that day, who thought that they did God service by thus ridding the world of one whom they considered an oppressor of the godly. The tomb of Bishop Kennedy is of exquisite workmanship. In it were found, a few years ago, six magnificent silver maces, one of which was presented to each of the Universities of Scotland.

The inhabitants of St. Andrew's derive their chief support from the University, great numbers of students resorting to it, for the excellent instruction it affords.

The remains of the castle are grand, and sufficiently indicate that the structure, when entire, must have been magnificent. It was built by Bishop Roger, in 1155, and although its base is now washed by the sea at high water, yet, originally, it appears to have been at some distance from it, as the remains of a chapel are still to be seen when the tide is out.

Cardinal Beaton, resided much in this castle, and is

said to have witnessed the martyrdom of Wishart from one of its windows. In 1546 the castle was surprised by some conspirators, the cardinal slain, and his dead body exposed out of that very window. The murderers defended the place for a year, though besieged by a French force. On their surrender, they were transported to France, and the castle demolished by order of council, lest it should be occupied by the English, who were preparing to invade Scotland. The trade and consequence of St. Andrew's are reviving.

CHEMISTRY.—No. XII.

(Continued from p. 201.)

SULPHUR.

SULPHUR is considered a simple elementary body; it was known at an early period of time, and is mentioned in the ancient Scriptures. It is found in most parts of the world, but always in greatest abundance in volcanic districts, where it sometimes occurs crystallized with great beauty. Europe is supplied with sulphur chiefly from Sicily, but a large quantity is obtained by roasting pyrites in England, and on the continent. It is of a pale yellow colour, possessing a faint aromatic taste and smell. It is a non-conductor of electricity, and so bad a conductor of heat, that if a roll of sulphur be held in the hand, it will break by the heat expanding the outer laminæ before it is conveyed to the inner. At a temperature of 170° it slowly sublimates, and if the operation be conducted in a close chamber the condensed sulphur is in a finely divided state, and is called flowers of sulphur. At 220° it melts, and becomes a perfect fluid; but if heated to 350° or 400° it is viscid, and of a deep brown colour. From 428° to 482° it is so tenacious that the vessel containing it may be inverted without spilling the contents. From 482° to 600° it sublimates rapidly, and becomes more fluid. At 700° it boils. Sulphur is said to be insoluble in water, but this is doubtful, as if boiling water be poured on sulphur and filtered, it will possess the peculiar taste and smell of the mineral. It is very soluble in boiling turpentine, or oil, and in caustic potash or soda.

Sulphur kindles into a flame at 300° , and by union with oxygen forms sulphurous acid gas. The smell produced by an ignited brunstone match arises from this gas. The flowers of sulphur prepared by sublimation are contaminated by sulphurous acid, and require to be purified by repeated affusions of distilled water. The roll sulphur of commerce is purified by melting, and removing the scum from the surface; it is then cast in moulds. The interior of a roll of sulphur is frequently crystallized very distinctly, but crystals of great beauty may be obtained by fusing a large quantity in a crucible, breaking the surface as soon as a crust is formed, and pouring out the liquid contents. The solid parts which adhere to the sides and bottom of the vessel, present a well defined crystalline texture.

Sulphur combines with metals, alkalies, and other bodies forming a variety of valuable and interesting compounds.

PROCRASTINATION.

PROCRASTINATION has been very well and very prettily defined to be "*the thief of time*;" and it is a thief, too, of a very alert and mischievous ability, for though to-day is

always with us, we can never contrive to come up with to-morrow. The very brevity, and still more the uncertainty of our mortal life, should be sufficient to dissuade us from putting off to a future time that which we are at present able to perform; to-day is in our own possession, but

"No man, how bright so'er the present hour,
Can say he hath to-morrow in his power."

The intellect which to-day is in meridian lustre, the power to which to-day admiring millions bow, the strength which to-day can rend the gnarled oak, the wealth which to-day can purchase the means of great enterprises; nay, even the life and health, without which all else are but names without reality, may to-morrow have departed from us for ever. It is therefore foolish to procrastinate any thing which ought to be done at all, and to procrastinate any thing of great consequence is frequently both ruinous and criminal; ruinous to him who procrastinates, and ruinous not only to himself, but also to those who trust him, or are dependent upon him. It argues a very contemptible indolence to defer to a future time what can as well be done at the present; and more advantages of fortune, learning, and rank, are lost by the indulgence of this most dangerous species of indolence, than the brightest genius can attain by the merely occasional exertion of the most splendid abilities. One of the greatest heroes of modern times, the gallant and immortal Nelson, was unable to hear of procrastination without anger. When he was about to proceed on his last glorious, though fatal expedition, a tradesman waited upon him to receive an order. His lordship having enjoined punctuality in its execution, the tradesman replied, "I will have them on board, my Lord, *precisely* at the time." "Twenty minutes *before* the time, Mr. —," replied the hero; "I owe my whole success in life to being twenty minutes in advance of my engagements;" so important did he think that alertness and punctuality, which procrastination habitually and systematically violates. Julius Cæsar was no less an enemy to procrastination; he would not even allow a river to stop him, but while less ardent persons would have been seeking or constructing a bridge, he and his legions had forded the river, if fordable, and swum it if not!

While we condemn all unnecessary delays in acting, let us not be thought to recommend a flighty and inconsiderate haste. Never was a better maxim than the "*hasten slowly*"—*i. e.* deliberately, of the Latin poet; but it applies to counsel, not to action. We cannot be too cautious or too careful in resolving upon any project; but having once resolved upon it, nothing should hinder us from putting it into instant effect, except the intervention of more important business.

Horace says, that he who defers a project from day to day is like one who should wait by a river's side for the river to run completely away, in order that he may reach the opposite bank. Horace is high authority, but we may venture to observe that the victim of procrastination is still more egregiously simple; the river indeed keeps perpetually running on, and the simpleton who wishes it all to run by him, may possibly get fairly tired into wisdom, and, as the river will not run from him, make up his sapient mind to run away from it. But the man of procrastination is somewhat worse situated: his *life* is running away from him and death sternly beckons him to the

* Nemo tam Divas habuit faventem ut crastinum sibi polliceretur.

grave ere he can resolve to defer no longer. It is easy no doubt to flatter our indolence by promising to be more alert to-morrow; the space between Monday and Tuesday is not great; we are young and healthy, and we are *so determined* to be very active to-morrow! Healthier than we are will, ere the to-morrow to which we allude, be racked with anguish, or plunged into mental darkness; and younger than we are will, ere the sun shall set, be numbered among the dead. Even if we were sure that to-morrow would do as well for our business as to day; even were we sure that to-morrow we shall be both able and willing to

do it; we ought not to wait. But we are sure of neither—we may be dead; and if living and healthy, who can answer that we shall not be as indolent the as now? Procrastination must be spurned from us a once, or never. It is a habit which “makes the meat it feeds on;” increases with increased indulgence; and becomes at last the nurse of that indolence of which it is the offspring.

Do any of our young readers feel inclined to “wait until to-morrow,” let them remember what we have already said, and let them also remember that “TO-DAY IS THE TO-MORROW OF YESTERDAY.”



ANCIENT ARMOUR, ARMS, &c.

As contests between different families and tribes took place almost immediately after the fall, some kind of defensive armour was, no doubt, invented to guard against the effect even of stones and clubs. The skins of beasts offered the most ready and convenient materials for this purpose, and accordingly we find ancient heroes described as clad in armour of this description. The skin of the Nemean lion formed a helmet and coat of mail for Hercules invulnerable to common weapons, whilst the grinning jaws of the monster, covering his head, gave a terrific fierceness to his aspect, which served to render it more appalling.

Even after the adoption of brazen and iron armour, the ancient defence of the skins of animals was not laid aside. Homer speaks thus of Paris,—

“The panther’s spotted hide,
Flow’d o’er his armour with an easy pride.”

But the invention of weapons of steel, and bows and arrows, soon rendered a more effective defence than skins necessary; they could deaden the blow of a club or of a stone, but they formed a very inadequate protection against the stroke of a sword or the impetus of a javelin or arrow. Josephus assures us, that the patriarch Joseph first taught the use of iron arms in Egypt, arming the troops of Pharaoh with a casque and buckler.

As early as the siege of Troy, about 1200 years before

Christ, the panoply of a warrior was nearly as complete as it ever has been since, as we may learn from the description of that made by Vulcan for Achilles.

“Then first he formed the immense and solid shield;
Rich, various artifice emblaz’d the field;
Its utmost verge a threefold circle bound,
A silver chain suspends the massy round;
Five ample plates the broad expanse compose,
And godlike labours on the surface rose.”

“Thus the broad shield complete, the artist crown’d
With his last hand, and pour’d the ocean round,
In living silver seem’d the waves to roll,
And beat the buckler’s verge, and bound the whole.
This done, whate’er a warrior’s use requires
He forg’d; the cuirass that outshines the fires,
The greaves of ductile tin, the helm impress’d
With various sculpture, and the golden crest.”

Sheathed in such armour as this, Achilles might well be said to be invulnerable to the weapons then in use, without having recourse to the fable of his mother having dipped him in the river Lethe.

This heavy defensive armour continued to be used by the Greeks in all their wars, except that the shield was made of smaller dimensions, as it was found by experience to be almost equally serviceable for defence, in consequence of the greater ease with which it could be opposed to a threatened stroke, and much less cumbrous and incon-

venient in offensive operations. The archers were more lightly armed, as they seldom engaged in close fight.

The Roman soldiers adopted the arms and armour of the nations they conquered when they found them superior to their own; thus Romulus substituted the broad Sabine buckler in lieu of the small Argian one he at first used.

The ancient Britons appear to have had no other defensive armour than bucklers, so that their naked bodies would little withstand the attack of the Roman soldier, who was too well defended by his helmet, coat of mail, greaves, and shield, to receive injury from the rude weapons of his barbarous foe. In the engraving above, a kind of ancient shield is exhibited to our readers.

In the days of chivalry, nobles and knights were so completely cased in armour that no part of their bodies was left exposed to the chance of a wound; the greatest danger they experienced was that of being unhorsed, as, when that happened, they were totally unable to rise, but lay at the mercy of a foe, who might deliberately pierce them through the joints of their harness. The horses likewise were defended by a steel covering for the head and neck.

The invention of gunpowder, and the introduction of cannon and musketry into battle, so early as the fourteenth century, would, it might be presumed, have occasioned this cumbrous armour to be laid aside. But custom and habit unite to retain ancient observances, though the occasion of them may be removed; steel armour continued to be worn long after it afforded little or no protection to the wearer, as it could not resist a cannon ball, nor even a musket bullet. It was entirely laid aside in the reign of William III.

The cuirass and helmet were again introduced into the French cavalry by Napoleon, but they served no other purpose than to encumber the wearer. May the happy time soon arrive when all nations will live in peace and harmony, and offensive and defensive weapons be no longer required!

The term Artillery is usually applied to cannon, mortars, and other fire-arms of a large size, but may with propriety be used when speaking of engines of war of great bulk and power.

The artillery of the ancients consisted of catapultæ, balistæ, the ram, and other engines for annoying an enemy, and demolishing fortifications. The catapultæ and balistæ greatly resembled each other, differing chiefly in size, and in the latter being used, almost exclusively, for throwing large stones.

If we may credit the accounts that have been handed down to us by Josephus, and others, of the effects of these engines, they fully equalled, if not exceeded, those of our largest cannon; stones of more than a hundred weight each were thrown from them with such prodigious force as to beat down walls, knock the angles off the towers, and level whole files of men; large and long darts were launched from them with such velocity, and with so powerful an impetus, as to pierce through the strongest armour, and occasion great havoc in an army.

The invention of cannon is ascribed, by the Germans, to Albertus Magnus, about the year 1250, and they are said to have been first introduced into battle about the middle of the fourteenth century. Edward III. used them at the battle of Cressy, in 1346; these were made of bars of iron, hooped with strong iron rings, and threw stones and balls of metal of great weight. In the engraving is

represented one of this sort. Monstrelet remarks of them, about 1459, "While King James of Scotland was observing the effect of his artillery at the siege of Roxburgh castle, one of the rudely-contrived cannons of that age, consisting of bars of iron, girded with circles of metal, suddenly burst; a fragment struck his thigh, and the great effusion of blood produced death almost instantaneously. The earl of Angus, who stood next to James, was wounded." Afterwards they were cast and bored, as in the present day, but they were made unnecessarily long, and distinguished, according to their size, by uncouth names, which are now disused.

At the siege of Constantinople, in 1453, the Turks had cannon which threw shot of 100 pounds weight, but few of them endured the third discharge without bursting. Mortars for throwing hollow shells, filled with gunpowder, were in use almost as early as cannon; they are said to be the invention of the Germans, and to have been used at the siege of Bremen, in 1653.

Carronades are cannon of a lighter construction, in proportion to the ball they carry, than the common kinds; they are of modern invention, and, within a moderate distance, will do great execution, but their range is much shorter than that of cannon of the same calibre. This species of artillery derived its name from the Carron foundry, where it was first made.

Experience having shewn that cannon of a very large size are not effective in proportion to their magnitude, in consequence of the difficulty of managing them, there are none now in general use larger than forty-two pounders; the largest battering cannon do not exceed twenty-four pounders, and field-pieces, twelve pounders.

The *hand-gun* was an ancient fire-arm of brass, rather long, and in use about the middle of the fifteenth century: a flat piece of the same metal turned upon a pin, and covered the pan which contained the gunpowder. A long piece of brass, was likewise attached to the breech of the gun, to ensure the aim. Of the other arms, we can merely mention a few names; viz. the cross-bow, (See Engraving,) the hand-cannon, arquebus or haquebut, demi-haque, musquet, wheel-lock, currier, caliver, carabine, escopette, fusil, musquetoon, petronel, blunderbuss, dragon, &c.

SEASONS.

To a lover of Nature nothing can be more interesting than the Seasons. He is delighted by the vernal beauties of *Spring*, which he values more highly than can be conceived possible by those who do not share his taste. The early flowers woo his senses to enjoyment, and the balmy breeze invigorates and cheers his frame.

In *Summer*, the lover of Nature sees those beauties matured whose early existence delighted him in the spring. The bud, which had given high promise in its infancy, is now expanded, and the flower on which he lavished his care now amply rewards him by its matured loveliness. How lovely is the summer evening walk! In contemplating the beauties which our bountiful Creator has scattered with a lavish hand, we are almost lost to this world with its cares and its bustle, until, perhaps, called back again to realities by the jocund voices of the home-returning peasants, or the mellow music of the evening bells. How sadly, though beautifully, do those bells sound to the man of thought!

"Those sounds, far floating with enraptured ear,
 Many have heard who ne'er again shall hear;
 In many a breast perchance, as now in mine,
 Those sounds have wakened ecstasies divine,
 Which now, nor rapture, nor regret can know,
 Laid by the universal tyrant low."

Every thing in Nature should speak morality to us. Man has his summer as well as the earth; and, like the fruits of the earth, he arrives at maturity and perfection of beauty. Man also has his Autumn. His beauties and his perfections, begin to fall into the sear and yellow leaf, and his joys and his delight gradually fade away.

The winter of earth presents us with many beauties. The fields glitter with snow, and the hedges are gemmed with icicles; and the very anticipation of the renewed beauties of the spring reconcile us to the inconveniences of winter, without which we should enjoy no spring.

And so with the winter of man. The once ruddy cheek is furrowed, and the once nervous and sinewy arm now trembles, and needs the support it gave to others. But though in itself the winter of man's age is cheerless and distressing, it is delightful inasmuch as it conducts us to the eternal spring-time of a better and a happier world.

The coffee-berry, the root and leaf of betel, the leaf of tobacco, and the tear of the poppy, or opium, all condense the spirits, and make them strong and alert.—*Sylva*.

PRINCIPLES, PREJUDICES, AND PASSIONS.

NOTHING is more common than to hear persons speaking of their principles, when, in fact, they mean either their prejudices or their passions. This error, arising from ignorance, is one of the greatest and most mischievous into which unthinking people are so ready to fall; and, therefore, to point out the precise difference between principles and those other two affections of the mind, is by no means an useless undertaking.

By *principles* we should understand something permanent, immovable, and immutable: that which vanishes cannot be a principle; that which yields to an impulse cannot be a principle; that which changes, and is one thing to-day, another thing to-morrow, cannot be a principle. For this reason—and a very good one it is—we say the man has no principle whose conduct is of that vacillating description, that no dependence can be placed upon him, and no confidence reposed in his professions or intentions.

Principles are continual in themselves, at all times, and under all circumstances, the same; equally influential in the mind of the meanest, as in that of the most exalted among mankind: but not so with prejudices and passions; those are the creatures of circumstances, and the offspring of such influences as the susceptibility of the mind, according to the situation in which persons are placed, and the objects they have been accustomed to view, as well as the subjects they have had to contemplate. When we have considered principles in their true light and character, we may then examine the nature and cause of prejudices and passions as they affect various persons in different stations of life, and under several circumstances.

Morality, honesty, and patriotism, are principles which cannot change in their nature and qualities; for if they exist at all, they must do so in their perfect form and vigour, or they must otherwise be wholly annihilated. A man cannot be moral who harbours a certain vice, however secret he may keep it; a man cannot be honest who takes advantage of another for his own emolument by any art of dissimulation, or concealment of any thing that may bring him gain, at the expense of his neighbour or his friend. Nor can that man be a patriot who seeks approbation and favour from the great; or, on the other hand, is delighted with the popular clamour, and the tumult of vulgar applause.

If his views ascend no higher than these, or if any design of advancement, or personal aggrandizement, be the only stimulus to his zeal, patriotism is no part of his character: these principles admit of no alloy; they will not amalgamate with any sinister ingredients; they evaporate when attempted to be adulterated, and are no longer retained. *Aut patriam aut nulla*.*

It will at once appear not only that great command of reason must exist with the man of principle, and that, too, sufficient to ensure perfect disinterestedness, but also that something must sustain and support his principles—something that is more firm and fixed than any things to be found in the maxims of morality alone, or among the rules by which the business of life is, for mutual advantages, conducted. There is a foundation, and but one, on which true principles stand secure; there is a rock firmer than *adamant*, on which, if a man erects his principles, the fabric will endure. This is indeed a principle which comprehends all the others, and out of which they rise as trees from the earth, in which also they are rooted, that is—RELIGION. But then—What is religion? It is the first, greatest, and primitive principle implanted in the mind of man by the Power that created him, and gave him the faculty of reason; and it is the parent of every virtue that inhabits the human heart. It is impossible to conceive the animation of a rational being without, at the same moment, entertaining an idea of natural, or rather an inspired religion; for how could such a being open his eyes to the light, feel his physical powers, the use of his limbs, and survey the objects around him, the earth and the glorious sun, without a spontaneous conviction of a Deity—a God that made him; and would not his first accents of unformed speech be significant sounds of astonishment, and the exultations of new-born life rise in orisons of praise to his Creator; for certain must he be that a power unseen had created him. Religion, then, is a principle coeval with the existence of man; and it is a principle destined to endure while man remains to inhabit the world which it has pleased God to create. Religion does not vary, though forms and ceremonies differ—it does not consist in those things; they are the ordinances and devices of men, and are often built on mistakes, and invented in error, as we mostly conceive of the heathen superstitions; but religion still reigned even among these absurdities, and man, in his most savage state, sunk all his fierceness, and bent in humiliation, when he felt a notion of a Supreme Being, and a conviction that he owed adoration to something above his species. This was a ray of religion, and it awaited only that passing of the cloud which revelation had to remove, in order to receive the full splendour of its glorious light. The light is come, and happy are they who, willing to walk in that light, do not seek the shades of darkness to cover their lack of principle and virtue. From this principle spring morality, honesty, patriotism, philanthropy, and every other principle that adorns the most exalted and pious among the children of men; and without this first principle, as the basis and foundation of all others, not one can exist. Morality alone is a castle in the air, that, by natural gravitation, will fall towards evil, and be dashed to pieces on the passions and prejudices of stubborn sensuality; but religion is fixed and centered in the immovable depth of eternity, and will stand unshaken when worlds are dissolved to dust, and scattered in the elements of unbounded space! Religion however, is, not a dormant principle; it must be active and apparent; nor is it a ceremonial only. They who have the least of it often pretend to admire it the most; and they who have the most of it are least ostentatious in the exercise thereof. It is like a metaphor in language, always best when it comes voluntarily, and is not constrained.

Evidently, therefore, they mistake the fact who talk of principles when prejudices or passions are the ruling motives by which they are actuated; yet it is of great importance that we should distinguish one from the other, for on this distinction depends that discretion which directs and governs the disposition and conduct of men, and marks the difference between wisdom and folly. He who acts by principle will preserve the dignity of his station, and always command respect, if not admiration; but he that is ruled by prejudice, or passion, will be subject to ridicule and derision, or involved in the miseries that licentiousness and credulity never fail to entail upon their votaries.

* Either country, or nothing,—or the public good alone,

Prejudices spring from two sources : first, from early and erroneous impressions, before the mind was capable of the exercise of ratiocination, or of choosing ideas ; and those are commonly the most obstinate and lasting. Secondly, from hasty, superficial, or careless conclusions, examinations, or observations of objects around us ; hence we mistake appearances and pervert facts, for want of examination, or by *ex parte* evidences. Those who entertain prejudices of the former kind, are such as, possessing feeble understandings, are willing to adopt the maxims of their predecessors, or indolently take for granted all that they have heard and read of, right and wrong, merely because they find it taught, admitted, or recorded ; and having gone on under a delusion for years, they become, at last, so habituated to it, that they are pained at the discovery of truth, just as the eyes of one used to a dungeon would be affected by the sudden effulgence of open day-light.

But those who fall into misconceptions, and form opinions incautiously, have their prejudices hanging loosely about them, which, however, if they throw off, it is but to adopt some other of a more fashionable kind, like the whimsical in dress, who follow the mode, however ill it may suit their form or complexion. Such persons, generally, have no real ideas of their own, but are easily prejudiced in favour or against any thing, according to the current of popular opinion, or the prevailing doctrines of the day. In either of these cases there is nothing like principle, nor any thing that can mark the character of an individual with the stamp of consistency.

We ought not to infer from these remarks that early instruction, even in things of abstruse or disputable qualities, is not desirable ; or that, as soon as we can exercise our judgment, we should indiscriminately abandon all we have been taught, in order to adopt new ideas and new opinions, merely for the sake of novelty, or because we would wish to be thought wiser than our ancestors, and therefore too proud to follow their doctrines and examples ; neither should we be quite indifferent to the current customs and practices of our contemporaries. There is a kind of conformity which a man may follow without yielding up any of his principles to prevailing prejudices, and the way to manage this kind of complaisance no man of decent understanding can mistake. In all things that do not interfere between God and his conscience man has great latitude for the sake of avoiding offences, or of inflicting pain on the feelings of others weaker in the powers of intellect than himself. To reject all our catechetical creed or instruction because it was arbitrarily inculcated, is a prejudice of a most extraordinary description, since it could not be otherwise given than by authority and command ; reason not having strength to receive it by a voluntary effort, and coming from the experience of ages past, and through the channels of pure affection and kindness, it must deserve, as it powerfully claims, the serious consideration of reason in maturity.

To refuse the precepts and shun the practices of our forefathers, for no other reason than because we scorn to be imitators, is about as wise as a man would be who was determined to crawl on his hands and knees, because, when a child, he had been held up and dandled to stand on his feet. In purifying the mind from prejudices, therefore, particularly those of early planting, great caution is necessary, for unless the space they occupied can be turned to better account, the mind too frequently produces weeds of most poisonous influence, so that innocent prejudices, whose only fault was ignorance, had better remained.

But what is really a prejudice ? It is exactly what the term implies, namely, *præ-judice*, that is, taking up an opinion at once, or on credit, before the judgment has been exercised upon it, than which nothing can be more reprehensible. Man's mind is endowed with faculties* which He who gave them expects him to exercise, not with the self-importance of misconceived infallibility, but with the humble industry of an inquirer after truth and knowledge. By a discreet use of his understanding a wise man conquers his prejudices, without yielding up any of his principles ; in fact, these are strengthened and established when those are rooted out.

Dismissing our observations on prejudices, we come next to

passions,—endowments of nature which, if under control, afford the highest gratification that human life can participate, but if suffered to govern over reason, are the most cruel, despotic, and implacable of tyrants, and the cause of miseries more extreme than any language can describe. Passions are not principles ; they have their mutations, and affect different persons in different degrees ; they are not adopted like prejudices, but are attached to sensation by nature, and suffered or sustained, not acquired by any effort of the mind ; and some of them are common to all animated nature, the meaner sort degrading to man when taken into association with his nobler faculties, and accompanying his sublimer ideas. Such are those that belong chiefly to brute animals, and are subject to a routine or system for their regulation not connected with reason, and therefore not at the will of the animal, but according to the compulsory influence of nature, who does nothing out of season. Man alone has the perfect liberty of volition ; he only can use the passions of nature as he pleases ; and having this free agency through the sovereignty of the immortal spirit within him, he becomes awfully accountable for his viceregency over all the mental and physical existences of the creation ; and when we hear of a ruling passion, it is a declaration of an usurpation over reason, gained by a rebellion against the government of that Divine authority. Man should have no ruling passion ; his ministers and supporters are his principles ; religion the chief, and his passions the subjects of his government. To be overcome when assailed is disgrace, to yield implicitly is cowardice, and to acquiesce or capitulate, when besieged by temptation, is traitorous towards his God.

Of all the passions that affect the human mind none are more insatiable than *avarice* ; most of the others cease or diminish according to the power of gratification, but this continues and commonly increases until it terminates in the tomb, and contrary to all other propensities, it seeks prohibition, it courts constraint, denies diversion, and refuses recreation ; it heaps up wealth to suffer poverty, amasses anxiety and wallows in misery, rejects enjoyment and pines in privation, for the sake of a useless hoard. The miser endures penury, and perishes in the midst of plenty ; he feasts his eyes but fasts his stomach, fills his wardrobe but bares his back ; his treasure is a tribute to *mammon* ; and of all beings, he who can endure so perseveringly on earth, is the best prepared to suffer in eternity.

Ambition is another ever restless passion, that becomes hungry by feeding, and craves the more as it is replenished by acquisitions ; it has desolated countries, ruined cities, destroyed millions of men, and subverted empires, without being satisfied ; still groaning more eager after conquest, as its operations have succeeded and its powers been increased. Milton has described the effect of this passion in the conduct of the rebel angels, and the desperate resolution with which the arch fiend endeavours to inspire his confederate spirits.

"He spoke; and to confirm his words, out flew
Millions of flaming swords, drawn from the thighs
Of mighty cherubims ; the sudden blaze
Far round illumin'd hell ; highly they rag'd
Against the Highest, and fierce, with grasped arms,
Clash'd on their sounding shields the din of war,
Hurling defiance toward the vault of heaven."

Great conquerors have sometimes been compared to madmen, who have no government of themselves, and who act by a wild enthusiasm, and under a frenzy that leads to the most extravagant consequences. *Juvenal*, in his Tenth Satire, has this idea when speaking of the Consul *Æmilius*, whose triumphal procession he describes as a grand subject for the laughter of *Democritus*.

"A heavy gewgaw call'd a crown that spread
About his temples, drown'd his narrow head,
And would have crush'd it with the massive freight,
But that a sweating slave sustain'd the weight :
A slave in the same chariot seen to ride,
To mortify the mighty madman's pride."

Nevertheless, both avarice and ambition have, by the hand of Providence, been turned to good account, though in themselves passions of a despicable and dangerous nature.

We have had noble charities and beneficial institutions founded by the bequests of those who, in their life times, never felt

* See Vol. I. p. 326, of the *Guide to Knowledge*, art. "Cosmologica," for a complete analysis of the human mind.

commiseration for misfortune, and who only left their ill-gotten goods to such purposes because they could not carry them away with themselves. And history shews to us the progress that civilization has made by the invasions of ambitious adventurers in former times, and the wisdom that mankind has acquired by the ravages of modern conquerors: and as ancient ambition contributed to civilize pagan nations, so has modern commotion (raised by the same motive) taught moderation and discretion to the present generation. These results, however, do not justify the exercise of such unwarrantable passions, for we are not to do evil that out of it good may abound. Ambition sometimes works by artifice and hypocrisy, such as courtiers practise who ingratiate themselves with princes, like that of Cardinal Wolsey, whose confession of this passion to Cromwell, his successor, is so pathetically described by Shakspeare,—

"I tell thee, Cromwell, fling away ambition,
By that sin fell the angels;
How can man, then, hope to profit by it?"

This kind of ambition is mixed with meanness, and, unlike that of a conqueror, has nothing of heroism to give it *éclat*. The one is the character of a highwayman, the other that of a swindler. But of avarice we have scarcely a comparison, unless it may be found among the reptiles that crawl in the dust, and live in the filth that all other creatures abhor.

There is another passion with which men often try to frighten one another, and by which they do themselves more mischief than they can possibly inflict upon the object of their resentment,—that is what we call *anger*. This overwhelming torrent of fury seems as if it really rushed from the regions of *Pandemonium*, like a tempest from the cave of Eolus, to prostrate all nature in one heap of ruin. But what is man's anger?—an impotent madness—a harlequin exhibition, that racks and tortures his mind and body, and covers his countenance with grimaces, for the laughter of others; while he writhes and twists in an agony of exertion from within.

(To be continued.)

Literary Review.

99. *A History of British Fishes.* By W. YARRELL, F.L.S. Parts III. IV. V. and VI. 8vo. London: Van Voorst.

THESE four parts of Mr. Yarrell's History of British Fishes are conducted in the same spirit as the two preceding them, which we noticed in No. CLXXIV. They contain ample descriptions of several well-known fishes, viz. the bream, mackarel, tunny, pilot-fish, sword-fish, scad, dory, mullet, braize, gilt-head, sparms, king-fish, scabbard-fish, gunnel, dragonet, blenny, shan, &c. Accompanying the descriptions, which clearly shew the habits, use, and economy of the fishes, and also their residence and mode and time of migration, with many other useful and important particulars, are pretty engravings, accurately illustrative of each subject.

The author observes of the mackarel:—

The mackarel was supposed by Anderson, DuRoi, and others, to be a fish of passage, performing, like some birds, certain periodical migrations, and making long voyages from north to south, at one season of the year, and the reverse at another. It does not appear to have been sufficiently considered, that, inhabiting a medium which varied but little, either in its temperature or productions, locally, fishes are removed beyond the influence of the two principal causes which make a temporary change of situation necessary. Independently of the difficulty of tracing the course pursued through so vast an expanse of water, the order of the appearance of the fish at different places on the shores of the temperate and southern parts of Europe is the reverse of that which, according to their theory, ought to have happened. It is known that this fish is now taken, even on some parts of our own coast, in every month of the year. It is probable that the mackarel inhabits almost the whole of the European seas; and the law of nature, which obliges them, and many others to visit the shallower water of the shores at a particular season, appears to be one of those wise and bountiful provisions of the Creator by which not only is the species perpetuated with the greatest certainty, but a large portion of the parent animals are thus brought within the reach of man, who, but for the action of this law, would be deprived of many of those species most valuable to him as food. For the mackarel dispersed over the immense surface of the deep, no effective fishery could be carried on; but approaching the shore as they do from all directions, and roving along the coast collected in immense shoals, millions are caught, which yet form but a very small portion compared with the myriads that escape. . . . The success of the (mackarel) fishery in 1821 was beyond all precedent. The value of the catch of sixteen boats from Lowestoffe, on the 30th of June,

amounted to 5,252l.; and it is supposed that there were no less an amount than 14,000l. altogether realized by the owners and men concerned in the fishery of the Suffolk coast. In March, 1833, on a Sunday, four Hastings' boats brought on shore 10,800 mackarel, and the next day, two boats brought 7000 fish. Early in the month of February, 1834, one boat's crew from Hastings cleared 100l. by the fish caught in one night; and a large quantity of very fine mackarel appeared in the London market in the second week of the same month. They were cried through the streets of London three for a shilling on the 14th and 22d of March 1834, and had then been plentiful for a month. The boats engaged in fishing are usually attended by other fast-sailing vessels, which are sent away with the fish taken. From some situations, these vessels sail away direct for the London market; at others, they make for the nearest point from which they can obtain land-carriage for their fish.

Mr. Yarrell's description of the mullet is this:

This fish (we are told by Mr. Crouch) never goes to a great distance from land, but delights in shallow water when the weather is warm and fine; at which time it is seen prowling near the margin in search of food, and imprinting a dimple on the placid surface as it snatches beneath any oily substance that may chance to be swimming. It ventures to some distance up rivers, but always returns with the tide. Carew, the Cornish historian, had a pond of salt water, in which these fish were kept: he says, that having been accustomed to feed them at a certain place every evening, they became so tame, that a knocking like that of chopping would certainly cause them to assemble. The intelligence this argues may also be inferred from the skill and vigilance this fish displays in avoiding danger, more especially in effecting its escape in circumstances of great peril. When enclosed within a ground-seam or sweep-net, as soon as the danger is seen, and before the limits of its range are straitened, and when even the end of the net might be passed, it is its common habit to prefer the shorter course, and throw itself over the head-line, and so escape; and when one of the company passes, all immediately follow. This disposition is so innate in the grey-mullet, that young ones of minute size may be seen tumbling themselves head over tail in their active exertions to pass the head-line. I have even known a mullet less than an inch in length to throw itself repeatedly over the side of a cup in which the water was an inch below the brim. Mullet frequently enter by the flood-gate into a salt-water mill-pond at Looe, which contains about twenty acres; and the larger ones, having looked about for a turn or two, often return by the way they had come. When, however, the turn of the tide has closed the gates and prevented this, though the space within is sufficiently large for pleasure and safety, the idea of constraint and danger sets them on effecting their deliverance. The wall is examined in every part; and when the water is near

the summit, efforts are made to throw themselves over, by which they are not uncommonly left on the bank to their own destruction. When, after being surrounded by a net, two or three have made their escape, and the margin of the net has been secured and elevated above the surface to render certain the capture of the only remaining one, I have seen the anxious prisoner pass from end to end, examine every mesh and all the folds that lay on the ground, and at last, concluding that to pass through a mesh, or rend it, afforded the only, though desperate chance of escape, it has retired to the greatest possible distance which had not been done before, and rushed at once to that part which was most tightly stretched. It was held, however, by the middle; and conscious that all further effort must be unavailing, it yielded without a further struggle to its fate. The grey-mullet selects food that is soft and fat, or such as has begun to suffer decomposition; in search of which it is often seen thrusting its mouth into the soft mud; and for selecting it, the lips appear to be furnished with exquisite sensibility of taste. It is, indeed, the only fish of which I am able to express my belief that it usually selects for food nothing that has life, although it sometimes swallows the common sand-worm. Its good success in escaping the hook commonly proceeds from its care not to swallow a particle of any hard or large substance; to avoid which it repeatedly receives the bait into its mouth, and rejects it; so that when hooked it is in the lips, from which the weight and struggles of the fish often deliver it. It is most readily taken with bait formed of the fat entrails of a fish, or cabbage boiled in broth.

100. *Flowers of Poetry for Young Persons, arranged from various Authors, as a Companion, or Sequel, to Miss Taylor's Original Poems.* 2 Vols. 18mo. London: Hamilton & Co.

Two pretty little volumes of poems, selected and arranged so as to be "especially adapted for the use of schools and young persons," upon the plan adopted by Miss Taylor.

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"G.V." will find them left out for him at our Publisher's.

"T.A." will find the statue of William Pitt in Hanover square.

To "S.S." we reply in the negative.

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BUILDWAS ABBEY, SHROPSHIRE.

It is our province now to give our readers some description of the venerable abbey of Buildwas, lying close to the river Severn, in Shropshire, and about a mile south-east of the foot of the celebrated Wrekin. It was founded early in the twelfth century by Roger, Bishop of Chester, and its foundation confirmed by king Stephen in 1139, four years after. It was dedicated to St. Mary and St. Chad, and was established for monks of the Savigny order, who some time afterwards became united to the Cistercians. The abbey, in course of time, received many benefactions and donations, most of which were confirmed by royal charter. Though Roger, Bishop of Chester, is generally esteemed the founder of Buildwas Abbey, yet many historians, among whom are Camden and Leland, consider Matilda de Bohun, wife to Sir Robert Burnel, to be the founder. Leland's words are these: "Matilda de Bohun, wife to Sir Robert Burnel, was founder of Buildwas Abbey, though some, for only the gift of the site of the house, take the Bishop of Chester for founder." The site at present, with all the lands belonging both in Shropshire and the adjoining counties, were granted to Lord Powis in the reign of Henry VIII. At the time of the suppression of monasteries there were twelve monks in this abbey, who were endowed, according to Speed, with one hundred and twenty-nine pounds six shillings and tenpence per annum; but according to Dugdale, with one hundred and ten pounds nineteen shillings and threepence per annum.

The ruins, a representation of which our artist has attempted to give our readers, stand in a most beautiful valley, encircled by the sylvan scenes which very prettily rise above
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it. Upon viewing them, we can observe many fine and curious specimens of the architecture of the period when it rose into existence—when the round and the pointed arch were united, and when the taste for the latter was beginning to prevail over that for the former. Originally the abbey church was cruciform, with a massive tower in the middle of the cross. From the west, at this time, the aspect of the church was striking and impressive; the huge pillars, their void arches, and heavy projecting capitals, the tower impending over the ruins, and lastly, the narrow, round-headed windows of the gloomy and desolate choir, and the luxuriant ivy mantling the walls, form one of the most solemn pictures of fallen monastic greatness still remaining in the kingdom. A great part of the walls of the church are now standing, and the arches of the aisles are supported by columns of a remarkable thickness. On each side of the nave are seven large pillars; five of them are round, the two nearest the choir are square; the whole have heavy square capitals, from whence spring arches with obtuse points; over these is a cloistery, with semicircular windows. The tower, of which only a small part remains, rests on four pointed arches, springing from brackets in the walls. The east end of the choir has three narrow round-headed windows, as has also the west end of the nave. The side aisles, transept, and chapels of the choir, are in total ruins. Under the south wing of the transept is a crypt, now converted into a cellar belonging to a house made out of the abbot's lodge. Of the stone roof of the church but small indications remain; the feet of the brackets from which the groins sprung still exhibit some portions of beautiful sculpture, and are nearly

perfect. On the north side of the nave is the area of the cloisters, now used as a farm yard. The chapter-house is nearly perfect; in form, a parallelogram, forty-three feet by thirty-three. The groins of the stone roof spring from two slender octagonal pillars on each side. The entrance is by a round arch, with a chevron moulding, and on each side of it one circular window in the same style. Over the chapter-house and the other apartments which form the east side of the cloister are the remains of a second story, which was perhaps the dormitory. The dimensions of the cloister court was one hundred and one feet by ninety. At the south-east angle is a passage which leads to an irregular area, eastward of the cloister, about ninety feet by seventy-five. On the north and east sides of this are ranges of lofty pointed arches, which probably are the remains of the refec-

tory; in the centre, one small portion of a square tower. And for the convenience, as it is supposed, of the inmates of the abbey, there was formerly a bridge across the Severn, which, owing to the smallness and narrowness of its arches, was in latter times a great obstruction to the navigation of the river. In 1795 a high flood carried it away; but it has been replaced by an elegant one of iron, erected at the expense of the county, from a design of Mr. Telford. It was opened in 1796, and the span of the arch is 130 feet, and the rise 24, but the roadway could not be carried to a great height; advantage was taken of the Schaffhausen principle, by making the outer ribs rise to the top of the railing, and connecting them with the lower ribs by means of dove-tailed ring posts.

THE EFFECTS OF WINDS ON THE OCEAN.

THE ocean, which at times rages with inconceivable fury, lashed by the tempests, is at other times as calm and placid as the most peaceful lake. The voyager who one day is driven by a most furious hurricane, perhaps the next day lies calm and motionless upon the unrippled bosom of the Atlantic. When the ocean is thus smooth, a breeze is seen approaching some time before its arrival. Captain Basil Hall gives a description of the first appearance of an approaching breeze, which is exceedingly vivid and interesting. "In the course of the afternoon, we perceived from the mast-head, far astern, a dark line along the horizon, which some of our most experienced hands pronounced the first trace of a breeze coming up. In the course of half an hour, this line had widened so much, that it could easily be perceived from the deck. Upon seeing this, the whistlers redoubled their efforts, and whether, as they pretended, it was owing to their interest with the clerk of the weather-office, or whether the wind, if left alone, would have come just as soon, I do not venture to pronounce; but certain it is, that long before sunset, our hearts were rejoiced by the sight of those numerous flying patches of wind scattered over the calm surface of the sea, called by seamen catspaws, I presume, from the stealthy, timorous manner in which they seem to touch the water, and straightway vanish again. By and by, the true wind,—the ripple which had marked the horizon astern of us, and broken the face of the mirror shining brightly every where else,—indicated its approach by fanning on the sky-sails, and other flying kites, generally supposed to be superfluous, but which upon such occasions as this do good service by catching the first breath of air that seems always to float above the water. One by one, every person marked the glistening eye of the helmsman, when he felt the spokes of the wheel pressing against his hand by the action of the water on the rudder."

But when the breeze swells to a gale, and the surface of the ocean is rolling in mountain billows, a scene is presented surpassed by none other which our globe exhibits. No description can convey an adequate idea of the real sublimity of the prospect presented from the deck of a ship in such an hour. An eloquent descriptive writer thus attempts to delineate a storm at sea:—

"After taking reef on reef, and furling sail after sail, it became necessary this morning, from the violence of the storm, to heave the ship to and let her drift with the wind. The scene is new and terrific: the dead-lights are in; and beside the gloom thus thrown over all below, the cabin has been made still more comfortless by a heavy sea, which

broke over the ship, and poured a torrent of water down the companion way. Every thing not strongly lashed is driving from one side to the other, while we ourselves, some seated on the floor, some on trunks and boxes, and others braced in our berths, are obliged to cling to whatever is within reach to prevent being dashed about in the same manner. The wind howls dismally through the spars and rigging, and every wave that rushes along the sides of the vessel, or breaks above the bulwarks and thunders over our heads, seems to threaten destruction.

"At nine o'clock I went on deck: I had anticipated a scene of grandeur, but its sublimity and fearfulness far surpassed my expectations. No description can convey a just impression of it to your mind. Imagine for a moment the mountains of Ostego to be rolling in every direction with high and broken swells over the lake and valley—just so monstrous are the billows that rage around us. We are in the gulf-stream, and the current and storm being in opposite directions, the waves are not only high and heavy, but irregular in their course, and so rapid in their succession, that before the ship in her descent is half way down the abyss between them, the next sea often collects to a tremendous height above her bowsprit, over which it appears impossible for her to rise; still she as often mounts its threatening waters, and rides in triumph on its summit. But the labour is excessive, and as she plunges from the top of one wave to the gulf below, and after a momentary pause rushes again to the height of another, every timber groans in the effort, and at times she trembles in the keel, as if foundering in the struggle.

"I was above when she made the most fearful plunge we have yet felt. Several of the crew were at the time securing the flying jib-boom, when the bowsprit, and whole head of the ship, were instantly buried in a mountain of water. An involuntary shriek, as their hats were seen sweeping topmast high on the passing wave, expressed the fear that they, too, were hurried to destruction; but happily they maintained their hold, and though bruised and breathless, escaped a watery grave. Sometimes a sudden gale comes with very little warning, and with almost inconceivable fury, in a short time, throws the ocean into uproar. In an instant, a ship may be thus overturned and sunk to the bottom of the ocean, leaving no one to tell the tale.

"At twelve o'clock last night a gale commenced, and an hour's time we were compelled to lay to under a st' sail only. The howling of the tempest, the plashing of the vessel, and trampling and hallooing of the crew prevented our taking any rest. The

deck this morning reported the wind to be a hurricane, and the waves mountains high: the latter circumstance we were ready to believe, without ocular demonstration. One or two of the passengers attempted to take breakfast; while at the table a sea struck the ship along her whole length, from the quarter-deck to the bows, and threw her nearly on her beam ends. She lay trembling under the stroke till I thought she would never rise again, and the water came pouring by the hogshead down the companion-way, and through the steerage-hatch. Every thing was swept from the table, though secured in the manner usual in such weather, and some of the family were thrown from their berths into the cabin. On deck one of the boats was stove, and the ship in her whole length was washed by the wave. The gale continuing to increase, and the sea to rise at a fearful rate, it became necessary for our safety to have the upper yards and masts sent down. The seamen were obliged to mount to the very tops, a distance of seventy or eighty feet from the deck, to unloose the rigging, where

'Upon the high and giddy mast,
In cradle of the rude imperious surge,'

they were swung every successive minute with incredible velocity through a space of little less than ninety feet, while an inevitable grave yawned beneath them, should the slender yard to which they clung give way, or they once lose their

footing. The unnatural sound of their voices as their screams to make themselves heard below were caught by the wind and borne away on the tempest came to the ear like the shrieks of the dying, and I dared scarce look up for a moment lest I should see some one in despite of every effort thrown into the raging sea, where no power of man could have secured him his rescue. Anticipating the expression of hopeless horror, which the wretch thus perishing would give, I often involuntary closed my eyes in the fear of beholding the agonizing reality.

"The storm raged till evening with unabated violence, and produced greater anxiety than any we had before experienced. A tempest such as this has been indeed indescribably sublime, but too dreadfully terrific when at its height to allow of much enjoyment. When it begins evidently to abate, and hope tells you that the worst is known, you are left to the indulgence of unmingled and enthusiastic admiration, and may gaze with delight at the ever-varying scene as wave after wave rears its monstrous head, and casts its foaming horrors to the clouds. But till this change does take place—while every successive blast blows harder and harder—and each billow threatens more surely than its precursor to bury you under its weight—it is impossible but that thoughts of fear must check, if they do not take entire place of the higher feelings of admiration."

NO. I.—THE SELF-INSTRUCTOR IN THE STUDY OF ENGLISH COMPOSITION.

In a former number of the "GUIDE TO KNOWLEDGE" we briefly spoke of the importance, and at the same time of the practicability, of self-instruction; and we know of scarcely any one branch of useful knowledge in which self-instruction is more perfectly practicable, and at the same time more frequently neglected, than it is in the art of English composition.

Even scholastic and systematic education pays scarcely sufficient attention to this very important particular; and the great majority of those who are by circumstances compelled to be their own tutors seem to labour under the mistaken notion of *this* being a matter in which, whatever may be their wish, they have really and truly no power. Never was a more mistaken, a more utterly groundless notion! The *will* and the *power* to write a neat and lucid English style are but one and the same. The contrary opinion, however, our own observation, corroborated by that of very many who agree with us in anxiety for the intellectual improvement of our fellow-subjects, convinces us is very generally held; and we think the error quite capital enough to require something like detailed refutation.

There is no faculty, mental or bodily, which may not be vastly strengthened and enlarged by habitual and vigorous use. Who has not remarked the well-developed muscles in the legs of dancing masters, even when they have been otherwise of rather a spare and puny build? And who has not observed the same fine development of the muscles in the arms of watermen, and of those smiths who are called hammermen? Observe the throats of professional singers, and you will see a similar effect of habitual and vigorous use.

It may be said that though true of the body, it is not so of the mind; and yet barristers and actors will without any difficulty commit to memory in a few hours an amount of matter which to a well-educated and intelligent man of another profession would be a very sufficiently difficult task for a week! Observe the orator, too: hour after hour,

he adds sentence to sentence—not of matter previously committed to memory, but of *reply* to matter which he has heard for the first time only in the very place, and at the very time at which he refutes or supports it, denounces it as criminal, or sneers it away as silly.

Each of these cases shows the vast power of habitual exertion in strengthening and enlarging particular faculties and particular organs; and if it were not wholly unnecessary to occupy farther space in arguing this point, we might adduce very many other cases equally cogent and conclusive. The immense circulation of our own and similar works, and the almost innumerable "reading clubs," and "literary institutions," which have, within the last few years, been established in every part of the United Kingdom, are quite conclusive as to the fact, that there are thousands and tens of thousands of young men who are daily toiling to acquire knowledge. We know that in many cases, the sciences, the classics, and various foreign languages, are studied, and with no trifling success, by men in the very humblest situations. Now these branches of knowledge present infinitely greater and more solid difficulties than the mere art of *TELLING in good English*; and be it observed this is, briefly spoken, all that we insist upon as universally useful in English composition.

It is impossible—and if it were possible, it is by no means desirable—that every man should, in the common sense of the word, be an author. It is not necessary that every man should furnish copy for a book duly printed, advertised, and sold—or consigned to the receptacles of waste paper. But, setting aside *this* use of English composition, how infinite are the occasions upon which the facile command of a good style would be advantageous; how very numerous the occasions upon which that command is absolutely indispensable to success in the ordinary business of life! Have you to answer or to write an advertisement; have you to reply to a false accusation, or to solicit an employment; have you to send intelligence, or to make inquiries; how very important

it is to be able to write *clearly* and intelligibly; fully, without being redundant and tedious—briefly, without being confused and obscure. And, then, the thing is so easy, so much in the way of every *seeker of knowledge*, that if the accomplishment were *only* an accomplishment, if it had nothing to recommend it beyond its mere gracefulness, it would be really well worth the slight exertion necessary to its acquisition. And yet this at once useful and graceful accomplishment, which may be so easily acquired, is so much neglected, that it would not be difficult to point out instances in which public men of really surprising depth and variety of knowledge have absolutely stultified themselves—have absolutely argued and declared *against their own convictions*, and against their own professed end and aim, merely from having neglected to secure *this* portion of the vast whole of knowledge. And in private life how often do we meet with instances of men being wholly incapable of giving a clear account of matters—however simple—of which we know that they have a knowledge as perfect as actual personal experience can give! This knowledge they could give to us, in a degree only so far less perfect as well-authenticated testimony is inferior to ocular demonstration. But, though they know *what* they want to say, they do not know *how* to say it; and thus we lose information, and they lose the pleasure which they would derive from giving that information to us. And yet these very men are probably equal or superior to ourselves in every intellectual power—but one. What a pity that no one has ever pointed out to them the value of that one—the facility with which that one may be obtained!

There is scarcely any one mental operation to which practice gives such facility as that of composition. Style is humorously defined by Washington Irving as being “*style*,” it is seriously defined, by a much greater writer, as being “*proper words in proper places*.” And this latter definition is so far correct, that though any one of two words might with equal correctness be used, it rarely happens that some one of two words would not be both more elegant and more vividly impressive than any one of all the other words that have the same or a very similar signification. In fact, there are so few strictly synonymous words derived from the same language, that in the case of two words, called synonyms, there is almost always one, even when they are of identical meaning, which, on the score of mere elegance and euphony,

or on that of homely impressiveness, should be preferred to the other.

No verbal direction, however detailed and careful, will suffice to teach the skill necessary to rapidly, and as it were intuitively, writing down that exact word which will most lucidly and forcibly convey the exact meaning of the writer, though, as we shall presently show, something can be done for the self-instructor even on this point. It is to his own incessant *habit of observation* that he must chiefly owe this apparently intuitive tact. He must, while reading for *knowledge*, read also for *style*. He must inquire who are reputed to be the most perfect masters of elegance of diction, and who are reputed to be the most vigorous and powerful. He must read them sentence by sentence, note their peculiarities, and endeavour to blend them in making his memoranda of his reading.

Still more may be done if he will employ half an hour *every day*—for *habit* is very powerful—in abridging, from memory, some portion of what he has read, or in making his own comments upon it; and from time to time compare the style of his abridgment or commentary with that of the authors he has abridged from or commented upon. He will thus acquire facility and fluency of diction, at which he himself will at length be astonished. Let him acquire the habit—that done, the labour will be as light and agreeable as it will be profitable.

If any who shall read the foregoing advice shall think that it promises too much, let us beg of him to reflect upon the full meaning of the words of the great Lord Bacon: “*Reading*,” says he, “*makes a full man; speaking, a ready man; and writing, an exact man.*” The first, in fact, *teaches to know*, and the second and third, by much practice, *teach to communicate*.

Irving’s “*Elements of Composition*,” Blair’s “*Rhetoric and Belles Lettres*,” Tooke’s “*Diversions of Purley*,” by way of teachers, and Addison’s “*Essays*,” by way of examples, used *with a will*—as the sailors pull when they heave anchor—will enable any young man to write in a good style; to communicate all that he knows; and to learn with the greater facility all that he aims at; and *reflection upon what is proper in writing will enable him to SPEAK with correctness and fluency—with efficiency to his instant object in speaking, and with credit to his character as an intellectual man.*

NO. I.—SYNOPSIS OF ASTRONOMY.

THE FIGURE OF THE EARTH.

IN giving to our young readers the following general view of astronomy, we are aware that but little towards a perfect elucidation of that sublime science can be done, in so very small a space as is allowed us; yet are we persuaded that, after an attentive perusal of our remarks, the reader will be impressed with some tolerable knowledge of the grand features of this noble study, and his mind prepared for the reception of the more profound branches.

By the study of astronomy we learn to believe that the earth on which we live is one of a countless host of similar worlds, with which the Almighty hand has bespotted the heavens of infinity that are vaulted over us. The perception of man is indeed limited, but in proportion as the power of optics is developed, so is the greatness of the Creator, and the number of worlds he has made, nobly brought to view. With the naked eye we can see only about a thousand stars, nor in both hemispheres are there to be seen more than

3,128. Of these, there are about 20 of the first magnitude, 76 of the second, 223 of the third, 510 of the fourth, 695 of the fifth, and 1604 of the sixth. Hence it will be observed that, in point of number, they increase in proportion to their magnitude or distance, since the number of stars of the tenth magnitude seen in Sir John Herschel’s telescope may be said, comparatively speaking, to be infinite. Of the milky-way, there passes over the field of his forty-feet reflector the immense number of 116,000 stars in a quarter of an hour. That we may give some idea of space, it may be well to observe, that in the *Philosophical Transactions*, it is said Dr. Bradley found the distance of the nearest fixed star, (Sirius,) to be 7,600,000,000,000 miles. Now it is taken as data among high astronomical authorities, that a star of the second magnitude is twice as distant as one of the first, that one of a third magnitude is three times as far; and so on to the tenth magnitude, of which Sir John Herschel states, “the

light, though travelling at the rate of twelve millions of miles in a minute, has been nearly two millions of years arriving to the earth." Hence then we are led to suppose that the world we inhabit can be but a mere atom in this grand scale of creation; and as it must appear to all that the first and most consistent study in astronomy must be the earth—our resting place, we shall at once proceed to describe its properties, beginning with its shape or figure.

The figure of the Earth is globular.



The above sketch represents a steam-vessel, going from the shore out to sea, with a figure standing on the beach watching it as it recedes. As the straight line *a, b, c*, indi-

cates the direction in which the person looks, it will be seen therefore that as she proceeds, her hull will appear to sink gradually into the water, and as the distance increases he will as gradually lose more and more of her, till her chimney or funnel will have entirely disappeared, as we have shewn at *c*. This will occur were the funnel sixty-six feet four inches high, and the ship ten miles from the observer. It will be observed again that if, on losing sight of the steamer at *c*, the spectator immediately ascend the tower in the rear, he will be enabled to look over the rounded protuberance of the water, which before impeded his sight, and see the same vessel for ten miles farther.

From accurate data on this apparent depression of a steamer at sea, and a little knowledge of trigonometry, it would appear that the ship was moving upon the arc of a circle, whose diameter was nearly 8000 miles; a fact which has been abundantly proved by many of our own countrymen who have sailed from England in a westerly direction, and after navigating 360 degrees of longitude, have returned in an easterly one: Thus much to prove the sphericity of the globe: our next paper shall refer to the attraction of gravitation.

ON THE OVER-LAUDED STUDY OF THE MATHEMATICS,

WRITTEN AFTER THE PERUSAL OF MR. WHEWELL'S TREATISE, AND MR. MANSFIELD'S ESSAY ON THAT SUBJECT.

BOTH in this country and in America, there is, we think, a disposition very greatly to overrate the value of the mathematics. If this disposition extended no farther than to the mere statement of *their* value, we might, perhaps, not think it necessary to trouble our readers with any thing like a formal essay on the subject.

But the advocates of the mathematics are not content to over-praise their own favourite study. On the contrary, some of them by inference, and others by direct, bold, and extremely illogical assumption, make the excellence of the mathematics a reason why the classics should be wholly and contemptuously laid aside. Extremely limited as is our space, we cannot allow error so dangerous as this to pass unexamined.

Our attention has been particularly called to this subject by the appearance of the work of Mr. Whewell—the highly endowed scholar whose former publications have done so much to sustain the mathematical reputation of Cambridge; and by that of an essay by Mr. Mansfield, which forms part of a volume of educational treatises which we have very recently received from America.

Mr. Whewell's work demands no very detailed examination; for it insists so positively upon benefits to arise from mathematical study, which some of the very ablest mathematicians have themselves admitted that the mathematics *cannot* give, that we really consider—highly as we think of Mr. Whewell as a man of science—that the very excess of its prejudice will be its most potent antidote. Indeed, as Mr. Whewell, fiercely as he battles for his favourite science, is far too erudite, and gifted with far too pure and fervid a love of erudition to join in the outcry against classical learning, we notice his book rather as a proof of the existence of the mistaken notion of which we wish to prevent the farther progress, than as being in itself, or by any means, a dangerously powerful supporter of that notion. Indeed, Cambridge has been so conspicuous for its undue attention to the mathematics, that we are rather grieved than surprised to find a fellow and tutor of that university unduly lauding the mathematics as a mean by which to discipline and strengthen the mind;

or in his own words, "*the best instrument with which to educate men to a full development of the reasoning faculty.*"

The "Essay" of Mr. Mansfield, is of a far more dangerous character. His style is glowing and eloquent; his recommendations of undue attention to mathematical studies are *seemingly* reasonable, and his illustrations of the usefulness of those studies are at once graphic, seductive, plausible,—and yet unsound. Moreover, his "Essay," or discourse, forms one portion of a volume, in which there appears an absolutely Vandal-like denunciation of the classics—which latter branch of education, little disposed as we are to over-laud, we are still less disposed to undervalue. *Exclusive* devotion, even to the classics, is by no means to be recommended—but certainly if we were bound to be acquainted with only the classics, or only the mathematics, we should find infinitely stronger and more numerous reasons to favour the former than to favour the latter.*

But our American advocate of the mathematics, though he refrains from anathematizing the classics, tells us, in so many words, that the mathematics are the *most* valuable means to two ends:—1. The discipline of the mind, moral and intellectual; 2. The attainment of such knowledge as may be useful in after life. By way of supporting his bold assertion, he marshals some great names after the following fashion: "Peter the Great," who, whether we contemplate his private or public character, was a sublime anomaly in the race of monarchs, owed his early education to a diplomatist, a mathematician, and his mother. His subsequent acquisitions in naval architecture, and in various branches of mechanics were such as could only have been made by the aid of mathematics." Granted! But Peter's mechanical skill was about the least valuable of all his numerous fine qualities! The vast power of *generalising*, of comparing the state of his kingdom with that of other kingdoms, of seizing upon the points in which his kingdom was inferior, the sublime determination to improve it on those points, and the exquisite tact by which he wrought that most difficult of all changes—

from a state of ignorantly-contented barbarism, to a state of enlightened struggling for improvement—could no more have been bestowed by the mathematician than by the idiot; and the “diplomatist and his mother” had an infinitely greater share in forming the vast, though imperfect mind of Peter the Great, than our American mathematician appears to suppose. Lord Erskine and Lord Brougham are among the eminent persons whom he speaks of as owing their fine minds to mathematical study; and certainly two more infelicitous examples could not have been selected. To confine ourselves to the latter, for the present: that Lord Brougham is acquainted, to a certain extent, with the mathematics, it is not for us to deny; but is he not also a classical scholar, a French, Italian, German, and Spanish scholar? has he not read law, divinity, philosophy, history, and the poets? And yet he whose multifariousness of acquirement surpasses that of any man of the present day, *he* is affirmed to owe to the mathematics alone, or mainly, “that clearness of method and strength of illustration which makes his very statements arguments, and his conclusions conviction!”

But if Mr. Mansfield is to support his theory by names instead of by argument, there are still greater and more numerous names against his theory than he can possibly muster in its defence. Erskine, in his very best day, was rather a poetical than a logical orator—rather a brilliant declaimer than a methodical, or even sound reasoner. And at an age far earlier than that at which many of his contemporaries were in the full and vigorous exercise of their mental powers, he was a believer in the mad superstitions or impostures of Johanna Southcote, and Richard Brothers; and so utterly destitute of even ordinary prudence and judgment, as to run away to Scotland to espouse the illiterate and ill-bred daughter of his washerwoman.

This is only indirect testimony against mathematics as a means of giving strength to the intellect; but in answer to various names marshalled in favour of his theory by our American, we may simply reply that Bishop Berkeley, Warburton, D’Alembert—himself one of the ablest modern French mathematicians, Dugald Stewart, Gibbon, and Madame de Staël—and only want of space prevents our greatly enlarging the catalogue with ancient as well as with modern names—have borne their testimony against the effi-

ciency of mathematics for “the discipline of the mind, and intellect.”

Madame de Staël is especially to our purpose. She says, “The study of languages, which in Germany constitutes the *basis of education*, (and this be it observed is the very point at issue,) is much more favourable to the evolution of the faculties in the earlier age of youth than that of mathematics, or of the physical sciences.” Pascal, that great geometer, whose profound thought hovered over the science which he peculiarly cultivated as over every other, has himself acknowledged the insuperable defects of those minds which owe their first formation to the mathematics.” And again, “There is in them,” *i. e.* those who have the lauded mathematics for the *basis* of their education, “only a *single faculty*, whilst the *whole moral being* ought to be under development at an age when it is so easy to derange the soul, as it is to injure the body, by attempting to strengthen only a part.”

Gibbon says, “As soon as I understood the principles, I relinquished for ever the study of the mathematics; nor can I lament that I desisted before my mind was hardened by the habit of rigid demonstration, so destructive of the finer feelings of moral evidence, which must, however, determine the actions and opinions of our lives.”

In addition to these testimonies against the mathematics as a *basis of education*, or a sole or chief discipliner of the mind, we might adduce but too numerous instances of mathematicians who have found the perfection of mathematical attainment insufficient to preserve them from the dark doubts of sceptics in some cases, and from the insane reveries promulgated by impostors or enthusiasts on the other.

But we have already exceeded our intended limit, and we have said enough to *lead* our readers *towards* a right judgment upon the mathematics as a means of mental discipline. And as for their *practical* use; are they not *absolutely* useless to ninety-nine men in every hundred? Our American antagonist points out the indispensable use of them in building, engineering, &c. Do we contradict him? Certainly not; but builders, engineers, and those who do require the mathematics in their business, *must* learn them as *part* of their business; and such persons form but a very small portion of that vast *whole*—THE PEOPLE, with reference to whom any really useful scheme of education must be constructed.

THE JESUITS,

THEIR ORIGIN AND HISTORY.

THIS wonderful and dangerous order was founded in the sixteenth century, by Ignatius Loyola, a Spanish knight. He was originally of the military profession, and on various occasions displayed the gallantry of a true Spanish Hidalgo. He at length lost his leg by a cannon shot, and being thus disqualified for the army, his active, resolute, and ambitious mind turned all its powers towards religion. A perusal of the “Lives of the Saints,” and similar exciting, though fabulous narratives, inspired him with the ambition of earning canonization by founding a new order, which should be distinguished by extraordinary zeal for, and services to, the Romish Church.

His first step was to promulgate rules enjoining, in addition to the usual compliances of the Romish religious orders, the duty of labouring devotedly for what *he* called the glory of God, by which words, however, he daringly and impiously spoke of the *worldly* interests of the Romish Church in general, and of the Jesuits, or Society of Jesus, in particular.

To find followers was then, as now, a matter of great facility to any adventurer professing remarkable sanctity, and possessing remarkable ability and craft; and Ignatius Loyola speedily found himself possessed of followers sufficiently enthusiastic, and sufficiently silly for his purpose. But the strict discipline of the Romish Church rendered it unsafe as to his secular interests, and fatal as to his hopes of canonization, to proceed beyond this point without the direct sanction of the Vatican. For this sanction he accordingly applied; and the cardinals, as advisers of the Pope, were in the first instance at once strongly and wisely opposed to allowing any new order. They very truly stated that a new order was wholly unnecessary; but Ignatius brought to his ambitious task a quality which very rarely fails to make its possessor successful—he *knew the human heart*. Finding that he was opposed by the cardinals on the ground of the sufficiency of the existing orders, he proposed that the order he intended to found, should add to the usual monastic vows

the new one of implicit obedience to the Pope. The bait took; and the Pope, Paul III. and his council, weakly consented to legitimize an order which speedily became influential beyond the Papal tiara itself, and though nominally the implicit, zealous servant of the Vatican, in reality its restless, daring, and insatiably covetous rival. Active, brave, full of worldly experience, and not wholly destitute of clerical lore, Ignatius soon had members of his order in every spot where the Papal faith was professed, and the Papal authority acknowledged.

As "general" of the order, Loyola was, in point of fact, despotic; and all the special privileges which were granted to the order his shrewdness and courage turned into so many instruments by which to increase and to secure his own power.

Great as was his ambition, great as was his courage, Ignatius Loyola owed the greater portion of his success to his masterly knowledge of mankind. We have seen that besides his extraordinary vow of implicit obedience to the Pope, he and his order had made all the customary vows—and these latter included *poverty*. But to this vow Loyola by no means inclined to adhere; and when he had well organized his society, he obtained a dispensation empowering the members of his order to *trade* with all those nations to whom they were engaged in preaching the papal faith.

Here a mine of wealth was at once opened to our ambitious subject; and he worked that mine with the hand of a master. To preach the papal faith, and to instruct youth, were among the exoteric duties of the order; and among these duties also were those of discovering the peculiar bent and peculiar capacities of their young pupils, and of so acting upon their discovery, as to train them to the utmost worldly ability, combined with the utmost slavishness of devotion to "the order," and to the "general."

The Pope's bull confirming the order was issued in 1545. For above ten years, Loyola used his power as "general" with a dexterity, a boldness, and a success, never perhaps equalled except by the Eastern impostor, Mahomet. To the very end of his life he was busy and successful; and dying in 1556, he was canonized in 1609, though he probably did more, however unintentionally, to disgust the nations with the frauds and the insolent greediness of Rome, than any man before or since has achieved—Luther himself not excepted.

Lainez, his friend and lieutenant, succeeded him, and showed himself in every way worthy to do so. The "order" grew greater and greater with each succeeding year. In the East Indies and in the West, their commercial transactions were innumerable, and their political influence as vast as it was secret. But their master-stroke was the subjecting to their despotic government, alike in secular and religious affairs, the natives of Paraguay in South America, to the number of more than a quarter of a million of families. So skilfully was this master-stroke of wicked policy effected, that even *now*—now, when European dynasties have tottered and fallen low in the dust—now, when the eagles of France have swooped with a fierce and fell appetite upon the fairest plains of Italy, and screamed above the snow-clad plains of the bleak north—now, that France has seen her despot die on an Atlantic rock, her legitimate monarch banished, and a "citizen king" unblushingly seated upon the throne of his banished relatives, and unsparingly trampling upon the very men whose insane folly and love of change bestowed upon him the power he misuses—now, that change has visited every nation of Europe, and that even the "turbaned" Turk patronises hatters, and believes that there are both wisdom and force beyond the pale of Islamism,—even

now, father Francia, the successor of Loyola and Lainez, rules in Paraguay with the unquestioned power of a heathen god, and with the unsparing and blighting cruelty of a heathen demon.

The limits of this work will not allow of our entering into minute details of the progress of the Jesuits; though such a detail would form at once a curious and instructive history. Loyola at the outset had but nine disciples. This was in 1540; yet so well, so completely had he foreseen and provided for the success of his order, that in 1608 we find it including upwards of ten thousand members, and exercising, in every quarter of the globe, a power at which weak men trembled and wise men were indignant. But there was an inherent source of weakness in this mighty and politic association; from wickedness came its strength, and from that same wickedness came its weakness too. Its power was so vast, and so unscrupulously exercised, that nation after nation expelled its members and denounced them as pests dangerous, equally to the powers of legitimate government, and to the rights of individuals; and in 1773, the condemnation of the Jesuits was confirmed by a bull of one of the best of the popes, Ganganelli, Pope Clement XIV.

In France, the Jesuits owed their fall not so much to the political and spiritual meddling and mischief-making which ruined them in England, in Venice, in Sicily, and even in bigoted and gloomy Spain, as to an act of commercial dishonesty. A member of the order became bankrupt for an enormous sum; and although the very constitution of the society—to say nothing of the despotic stretch of power on the part of succeeding generals and their immediate tools—rendered this man a mere slave of this very society, yet it was sought that he should leave his creditors to their remedy, as against *him* in his character of a private individual. But the real nature of the society was by this time too well and too generally known, to admit of so gross an act of fraud passing undetected or unresisted. The affair was brought before the parliament of Paris, and it was decided that the *society* was answerable for the debts of its mere tool and servant. In the course of the investigation of this affair, the Rules of the Order were produced; and among them were found rules and maxims so hostile to social order, and so subversive of individual honesty, that the "order" was suppressed in France, at the unanimous call, alike of the higher and the lower orders of people.

How dangerous their principles and maxims are, may be judged from the following summary:—

1. Their theological sentiments, which are in some measure peculiar, are as follows:—1. This order maintains (in stronger terms than most other Catholics) the *infallibility* of the Pope; that he is the only visible source of that universal and unlimited power which Christ granted to the church; that all bishops and subordinate rulers derive from him alone the authority and jurisdiction with which they are invested; and that he alone, in that sacred community, is the supreme lawgiver, whose commands it is in the highest degree criminal to oppose or disobey.—2. They comprehend within the limits of the church, not only many who live separate from the communion of Rome, but even nations that have no knowledge of Christianity; and consider as true members of the church open transgressors who profess its doctrines.—3. The Jesuits maintain that human nature is far from being deprived, by the fall, of all power of doing good; that the succours of grace are administered to all mankind in a measure sufficient to lead them to eternal life; that the operations of grace may be effectually resisted; and that God has appointed everlasting rewards and punishments, in consequence of that divine prescience, by which he foresaw

the actions, merits, and characters, of every individual.—4. They represent it as a matter of perfect indifference from what motives men obey the laws of God, provided these laws are really obeyed; and maintain, that the service of those who obey from the fear of punishment is as agreeable to the Deity as those actions which proceed from a principle of love to Him and His laws.—5. They maintain, that the sacraments have in themselves an intrinsic and efficient power, by virtue of which they work in the soul independently of any previous preparation or disposition to receive the divine grace.—6. They recommend a devout ignorance to such as submit to their direction, and think a Christian sufficiently instructed when he has learned to yield a blind and unlimited obedience to the orders of the church.

II. The following maxims, among many others, were extracted from the moral and casuistical writings of their most celebrated authors, and were alleged to show the danger of their principles to governments and to society.—

1. That persons wholly void of the love of God may expect to obtain eternal life provided they be impressed with a fear of the divine anger, and avoid all heinous and enormous crimes, though it be only through the dread of future punishment.—

2. That those persons may transgress with safety who have a probable reason for transgressing; *i. e.* any plausible argument, or authority, in favour of the sin they are inclined to commit.—3. That actions intrinsically evil, and contrary to the divine law, may be innocently performed by those who have so much power over their own minds as to join,

though but *ideally*, a good end to such action.—4. *Flat* philosophical sin (*i. e.* sin committed through ignorance, or forgetfulness of God) is of a very light and trivial nature, and does not deserve the pains of Hell.—5. That the transgressions committed by a person blinded by the seductions of tumultuous passions, and destitute of all sense of religion, however heinous in themselves, are not imputable to the transgressor before the tribunal of God; and may be often as involuntary as the actions of a madman.—6. That the person who takes an oath, or enters into a contract, may, to elude the force of the one, and obligation of the other, add to the form of the words used, certain mental additions, and tacit reservations.

In 1814, when the Bourbons were restored to their rule in France, they weakly solicited the Pope to restore this order, which in all places, and at all times had proved itself inimical to the best interests alike of rulers, and of the ruled; and the pope just as weakly consented to comply with the impolitic request.

In England, too, and in Ireland, the Jesuits have made considerable progress; possessing large tracts of land, and keeping up not only large settled establishments, but also numerous proselytising itinerants. Happily the day is gone by for either Rome or Rome's emissaries to work with any power in this country; but free, enlightened, and tolerant as we are, it may sooner or later become a question for those who are charged with the protection of our liberties, whether it really is tolerant to *tolerate* the intolerant.

HISTORY AND DESCRIPTION OF DUNFERMLINE ABBEY.

THE origin and precise date of the founding of the religious buildings of Dunfermline are involved in dark obscurity. Historians who have written of about the period, seem to have been possessed of materials capable of furnishing many important facts, and to have collected much traditionary matter, which gives great interest to the events of these early times, but do not appear to have been able to attach the importance of a date to many of the prominent features of history, which immediately precede and follow the first notice taken of Dunfermline. Boece, the early historian, speaking of the religious establishment at Dunfermline, states that Malcolm III. by the persuasion of Margaret, his queen, and Bishop Turgot of Durham, (her confessor,) founded the church and convent of Dunfermline, and ordered that in all future times the church should be the place of sepulchre of the kings and queens of Scotland. Comparing historical and traditionary references, they both seem to point out the year 1070, as being the year when the buildings in question were begun. After the church was so far completed as to be deemed convenient for the due performance of religious worship, it was dedicated by the Bishop of St. Andrews to the order of the Holy Trinity. Malcolm III. and Margaret, bequeathed to the church much landed property in the neighbourhood, at a considerable distance therefrom; they also granted charters embracing many important privileges; which exemplary lesson was followed down to the dawn of the Reformation, by kings, queens, abbots, and others impressed with religious reverence. Margaret was the first who was interred at Dunfermline; she died in the castle of Edinburgh, Nov. 16, 1093, and had to be taken out of that castle through a concealed postern-gate on the west, as the castle was at the time besieged by Donald VII. on the eastern side, (*Vide Fordun, l. v. c. 25.*) It might be mentioned here, that

from the different bearings of history it would seem that Margaret was lying very ill in the "castel" of Edinburgh, at the time when her husband Malcolm, and her eldest son Edward led the Scottish army to the siege of Alnwick Castle in Northumberland: at hearing that they had been slain in the conflict, and that Malcolm's body had been left in the hands of the victors, "her strength and spirits failed her, she made her confession, received the 'Holy Sacrament,' gave her dying blessing to those of her children around her, and expired." Edward, who had been slain at the siege, was interred close by his mother, shortly after. Malcolm's body being interred at Teignmouth, it was exhumed by Alexander I. his son, and re-interred in the royal sepulchre at Dunfermline. About the year 1118 Alexander I. finished the church and convent, and granted it several parcels of land, (*Carte de Dunf. p. 9.*) It is very curious to observe the spirit which led to the bequeathing of gifts, &c. to this ancient and, in some degree, mother church of Scotland. We will note down a few of them in regular order, extracted from the ancient chartulary of the abbey. In the year 1120, "Walcleve, the son of Gospatric, gave the church of Inverkeithing to the convent, 'for the love of God and Saint Margaret, that our Lord Jesus Christ, by the intercession of that holy queen, and by the prayers there offered up, may have compassion on our souls,'" (*Carte de Dunf. p. 85.*) About the year 1160, Malcolm IV. bequeaths gifts to the church and convent, and for such he enjoins its protection, for "there the bodie of his grandfather Kyng David rests in God," (*Carte de Dunf. p. 10.*) In the year 1176, Margaret de Ouyeth gives certain lands to the abbey, that a mass should be celebrated on her birthday for her soul, (*Carte de Dunf. p. 89.*) About the year 1188, Galfridus de Malevin, the abbot, gave a church to the abbey, in order to support "a burning and perpetual light



WAYLAND SMITH'S CAVE,

With a few Remarks on the Talent of Sir Walter Scott.

CHIEF among the many and extraordinary triumphs of genius is the power of converting the slightest hint, the merest word, into a large, a perfect, and an epic whole. Of the tens—nay, of the hundreds of thousands of persons who have heard of the cold-blooded murder committed by Eugene Aram, and of the singularly adroit and logical defence made by the murderer, no one, *but* one, ever thought of making a beautiful fiction, calculated at once to inspire the heart with virtue, and to goad on the mind to the attainment of knowledge.

When that great and good man, the late Sir Walter Scott, read "Eugene Aram," he said, "I must look about me: the man who can make a story so well known, so exceedingly interesting, is no common competitor." The great and good writer was perfectly correct; it was no common mind which had started up to share and to dispute his eminence.

But Sir Walter—"in wit a man, simplicity a child"—seems, from first to last, to have wonderfully undervalued *his own* genius. He, too, had the rare art of making the familiar, novel; of making the trifling, important; of making the hackneyed, interesting; of converting the brief and dry sentence into the ever-fresh, the extended, the glowing, the priceless narrative.

An ordinary reader, taking up that beautiful historic fiction, "Kenilworth," would suppose "Wayland Smith" to be not merely an unimportant person of the drama, but also a mere dry and laborious creation of the author; and yet

this character is one of the greatest proofs of Scott's singularly creative and *artful* power. A few words, a mere legend—a legend, too, not rendered familiar and touching to him by any connexion with the land

"Of reiver-knight, of sprite, or fay,
Of feud, of clanship, or of fray,"—

sufficed him for the creation of one of the most poetically perfect and most thrillingly interesting of all the characters his wizard pen has left to solace sickness, to console sorrow, to inspire genius, or to defy imitation.

That admirable series of works, known as the Waverley Novels, abounds with instances of the great skill and facility with which, in writing fiction, Scott could avail himself of any local tradition. Seizing upon this, and especially if it afforded him a *place* as well as a person, he would enlarge upon all the most convertible features of the story, throw over it the rainbow hues of his own fertile and vivid imagination, and so interweave the tradition with his own invention, that it requires some skill to discern at a first glance which is the veritable transcript from history or tradition, and which is the mere invention of the author.

In the admirable historical romance of "Kenilworth," Wayland Smith plays a most important part, and his character is drawn with striking power and freshness. Yet the hint upon which Scott founded this powerful character is so slight, that, probably, scarce one in a thousand of his readers have discovered that the whole character is not fictitious.

On Childry Downs, in Berkshire, and not far from the town of Wantage, there is a cave which is called Wayland Smith's. Its entrance is formed of two flat stones set edgewise, and a larger one laid across them. The interior has the appearance of having been blasted with gunpowder, a circumstance of which Scott took occasion to make very effective use.

The tradition of the neighbourhood says, that this cave was inhabited by a smith, who was never to be seen. The traveller who wanted a horse shodden had only to leave the animal and the price of the job near the mouth of the cave, and retire out of sight; and in a short time the invisible workman would perform the requisite operation.

While fable has given to this cave an invisible smith for an inhabitant, antiquarian conjecture has been at work as to the *origin* of the cave. From various mounds of earth in the vicinity of the cave, spear heads and human bones have, from time to time, been dug out. It is probable, therefore, that it marks the scene of some great and important battle, during the time of our British ancestors; and, probably, the Druids made the cave, which served to mark the spot a place of religious ceremony, as well as of funereal monument; and this conjecture is greatly corroborated by the resemblance between the form in which the stones are arranged at Wayland's Cave, and that in which are placed the undoubted Druidical fragments of Stonehenge.

BRIEF VIEW OF THE IRISH REBELLION,

WITH A SLIGHT SKETCH OF THE EFFECTS OF PAPACY AND PROTESTANTISM ON THE IRISH PEOPLE.

(Continued from p. 13.)

LORD EDWARD FITZGERALD was the fifth son of the duke of Leinster, by Emilia Mary, daughter of the duke of Richmond, and was born in 1763. As a younger son of a not particularly wealthy nobleman, a profession was necessary for him, and he embraced the army. After a short service in the Sussex Militia, of which the duke of Richmond was colonel, he obtained a lieutenancy in the 96th Infantry, and joined his regiment towards the close of the year 1780. He remained with this regiment but a short time; and in 1781 joined the 19th foot, and went with it to North America. Here he saw some active service, and was remarkable for courage, for a rigid attention to his regimental duty, and for an unceasing endeavour to improve himself in every thing calculated to make him an efficient officer. It is due to him and to candour to say this; but it is to be observed, that his courage and zeal were shared by a great majority of all the officers in the British army, and that the admirers of his subsequent sedition have laid very fulsome stress upon deeds of *his*, which have millions of times been infinitely surpassed by officers of whose very names no mention is made. He joined the 19th, as we have seen, only in 1781; in 1783 we find him holding a staff appointment under General O'Hara, in the West Indies; and in this latter year we find him hinting very broadly to his noble mother that his servitude—four years, including his home service in the Sussex Militia!—entitled him to a company in the Guards. In August of the same year he was in Ireland, having been brought in by the duke of Leinster for the borough of Athy: 1784 and 1785 were also spent in Ireland, and in 1786 he entered himself at Woolwich. After studying there a few months he accompanied the duke of Richmond in his tour of inspection to Jersey, Guernsey, &c. During this time his letters are full of maudlin sentimentalism. Young, healthy, well-connected, already a legislator, and having before him the most flattering prospects of rising in the army—for which he was infinitely better adapted than for the senate—he yet was evidently discontented, craving he knew not what, and writing in a style of complaint which might almost justify one in supposing him to plagiarize from the trumpery novels of that time. The truth of the matter is, that he wanted principles to refer to; he had a heated and unhealthy, but not a large or vigorous imagination; he was at the same time as nearly destitute of judgment as a man could be who was not actually insane, and his friends seem to have taken no pains to inculcate that kind of advice which, valuable to all young men, is absolutely indispensable to those who have not a very extraordinary portion of that kind of judgment which we call "intuition." Thus much as to his mind we have felt it necessary to say, because his Whig biographer has chosen to dignify with the fine names of "enthusiasm," "light heartedness," "affection," "ardour," and the like, what was in fact the mere weak, vain, and diseased craving of an ill-cultivated or undeveloped mind; and it is important that weak persons be not encouraged in mental hypochondriasis, by seeing sickness

called strength, folly wisdom, and childish anecdote a proof of genius.

Gifted with a singularly agile and powerful person, and having great and unquestionable personal courage, the best thing that could have happened to him would have been his being left to serve abroad for several years. Familiarity with dangers and hardships would thus have had time to do its part in freeing his mind from idle dreaming; and constant collision with worldly people of various ranks would inevitably have shamed him out of a mental effeminacy, as surprising in a person so physically courageous and vigorous, as it was unbecoming in a person of his profession.

We have seen that he returned to Ireland in 1783. From that time till May 1788 he did no military duty, unless we may call by that name his few months' residence at Woolwich. In June 1788 we find him in North America again,—having just arrived there, and we find him there as major of the 54th regiment,—his actual military service having only been about three years and a half! Yet this was the man who very shortly afterwards was to be an armed rebel against the king, and an active and mischievous foe to the country.

"Never satisfied under any circumstances, or at ease in any place," would be the judgment any one would pass on this restless and feverish young man, even from a perusal of his earliest, and therefore most excusable letters. And the conduct of the man of twenty-six was quite worthy of the sentiments of the boy of seventeen. In 1788, without even taking leave of his mother, he hurried to America. There a major at six and twenty, with very easy duty, and with the actual command of a regiment during a lengthened visit of his lieutenant-colonel to England, one would suppose that he could at least have been contented for some time. His letters, in fact, begin to impress with the belief that his mind is at length becoming somewhat healthy and vigorous, when, *presto!* in January 1790, his absence from England, including the time occupied in voyaging out and home, being just eighteen months, we find him in London! Here he was introduced to Mr. Pitt, and but for the political wrong-headedness with which he had now for some time been afflicted, his high connexions, and the military services he had performed during his short actual career in America, would have obtained him honourable and important employment.

But although he was laid aside by the English ministry solely through his own intractable and untoward temper, he left England in evident bad feeling towards both that country and its ministry, and on arriving in Dublin plunged at once into fierce opposition to the Irish government.

His parliamentary conduct was marked by an equal want of temper and statesmanlike ability; and on one occasion his language was so grossly offensive to his fellow-senators that he was compelled to apologize at the bar. All this was sufficiently deplorable.

nable in a young man who was placed in circumstances which, with only an ordinary share of temper and right feeling, would have enabled him to take an importantly useful and influential part in public affairs. But infinitely worse than all this was yet in store.

Having on various occasions distinguished himself in the House of Commons by his factious opposition to the government, and having for his chief companion out of house the subsequently but too notorious Arthur O'Connor, he at length, in 1796, when the "United Irishmen" were absolute traitors, became a member of that association. Theobald Wolfe Tone, as has been already shown, had proceeded to France to negotiate there with the inveterate enemies of England; and shortly after Lord Edward became a United Irishman, he and his friend O'Connor proceeded first to Hamburgh and then to Basle, for the purpose of settling formal terms of treaty between the French directory and the Irish rebels. The negotiation, however, proceeded no farther than preliminaries, when the French government signified that Mr. O'Connor alone would be treated with; lest, Lord Edward being married to a natural daughter of the ever infamous *Egalité* (duke of Orleans, who aided in the murder of his brother, the unfortunate Louis XVI.) his going to France should be suspected by the French mob to have some connexion with the banished Bourbons. This might *partly*, in fact, be the real reason; but it seems not improbable that the levity and want of shrewdness of Lord Edward were now tolerably well known. And certainly his conduct after parting with O'Connor justified the course pursued by the French; for while travelling to Hamburgh, Lord Edward, with the inconsequence which made an essential part of his character, made a lady who was his fellow-traveller, and whom he then saw for the first time, aware not only of his political desires in full, but also of not a few of the actual plans and courses of his colleagues in treason! And the information he thus gratuitously and insanely gave being forwarded to the English government, was a chief cause of his lordship's subsequent fate.

On Lord Edward's return to Ireland he continued to busy himself not only in the open sedition of the United Irishmen of Dublin, but was also the chief mover of all the various secret societies which were at work in the provinces; providing arms, collecting money, and preparing for a general rising, when their worthy *confrères*, the French, should appear off the coast. During all the remainder of 1797, and during so much of 1798 as elapsed previous to his arrest, Lord Edward's entire life was spent in the utterance of sedition, and in the commission of treason. He had in fact forfeited his life to the law against treason a thousand times over. At length, on the 28th of February, 1798, O'Connor and a papist priest named Quigley were arrested on a charge of high treason, and a paper was found on their persons *inviting the French to invade Ireland*. How Lord Edward conducted himself we must allow his apologetic biographer—who seems very comfortably unconscious of the atrocity of his hero's conduct—to tell in his own words. "It being now clear that with or without French aid the struggle must soon come,"—*i. e.* that treason had now so far proceeded that government could no longer be blinded,—"Lord Edward and his colleagues urged on with redoubled zeal the preparations for the encounter. A revolutionary staff was formed, and an adjutant-general appointed in each county, to transmit returns to the Executive of the strength and state of their"—*i. e.* the rebels!—"respective forces; to report the nature of the military positions in their neighbourhood; to watch the movements of the king's troops; and, in short, as their instructions (*drawn up by Lord Edward himself*) direct, to attend to every point connected with the species of warfare which they were about to wage."

He was now, then, even by his partial biographer's own showing, committing that unquestionable HIGH TREASON, "levying war against our sovereign Lord the king, his crown, and dignity."* And yet the attainder was subsequently taken from his blood on the shallow pretence that he had not been *proved* guilty of treason; though in addition to the above-described "overt acts," he was actually apprehended with arms in his hand, and died of the wounds he received in endeavouring to slay the king's officers.

The arrest of Quigley and O'Connor was shortly after followed

by that of Oliver Bond, and other members of a secret committee of the United Irishmen, and who were *arrested while sitting in their treasonable conclave at Bond's house, and with abundant evidence of their criminal conduct actually on the table at which they sat*. A warrant was now issued for Lord Edward's apprehension, and after hiding in various places for some time, he was at length arrested, after having desperately wounded one of the persons who apprehended him. His conduct on the occasion is described by the man who had sheltered him as "tiger-like;" and it was only when Major Sirr, town mayor, was disabled by a shot in the right arm, that he could be conveyed to gaol.

His friends, who seem to have supposed that his high birth warranted him in treason, and that *he*, wounded by his captors only in their self-defence, was to be pitied, while the half-murdered gentleman upon whom his dagger had inflicted agony and danger was beneath notice, moved heaven and earth to secure his life. Nay, they went so far as to propose his "going into exile," though his "exiled" colleague Tone was now actually in France levying war against his native country. So far were the much-calamitated authorities of that time from desiring wantonly, or otherwise than in the utmost necessity, to spill blood, that it is most probable he *would* have been pardoned on condition of leaving the country; but the wounds his own useless and savage violence had caused him to receive proved incurable, and he died in the metropolitan gaol of Dublin on the 4th of June, 1798.

After his death some of his relatives wrote insulting and intemperate letters to the chancellor and lord lieutenant of Ireland. Judging only from these letters, one would imagine Lord Edward to have been entirely innocent of even a thought of treason. And, in fact, these imprudent relatives vapoured as though that actually were the case, until the duke of Richmond drily and shrewdly advised them to say nothing about his particular innocence, but to stick to generalities, "which," says the duke, "*will be far better than getting into a dispute about his being more or less concerned*." The advice was certainly very sound!

Our readers are now aware how active in treason were Fitzgerald and Tone; and they are aware that they were the leaders of the "United Irishmen." Tone, we have seen, was actually the first founder of a club of United Irishmen; and when he, by way of rewarding the government for its weak lenity to him, was busied in France in levying war against England and Ireland, Lord Edward took his place as *Corypheus of the United Irishmen*.

(To be continued.)

OF INSTINCT

(Continued from page 8.)

BUT it will be said, that what reason could not do for the bird, observation, or instruction, or tradition, might. Now if it be true that a couple of sparrows, brought up from the first in a state of separation from all other birds, would build their nest, and brood upon their eggs, then there is an end of this solution. What can be the tradition or knowledge of a chicken hatched in an oven?

Of young birds taken in their nests, a few species breed when kept in cages; and they which do so build their nests nearly in the same manner as in the wild state, and sit upon their eggs. This is sufficient to prove an instinct, without having recourse to experiments upon birds hatched by artificial heat, and deprived from their birth of all communication with their species; for we can hardly bring ourselves to believe that the parent bird informed her unfledged pupil of the history of her gestation, her timely preparation of a nest, her exclusion of the eggs, her long incubation, and of the joyful eruption, at last, of her expected offspring; all which the bird in the cage must have learnt in her infancy, if we resolve her conduct into construction: unless we will rather suppose that she remembered her own escape from the egg, had attentively observed the conformation of the nest

* The law language for indictments for treason.

in which she was nurtured, and had treasured up her remarks for future imitation; which is not only extremely improbable, (for who, that sees a brood of callow birds in their nest can believe that they are taking a plan of their habitation?) but leaves unaccounted for one principal part of the difficulty, "the preparation of the nest before the laying of the egg." This she could not gain from observation in her infancy.

It is remarkable also that the hen sits upon eggs that she has laid without any communication with the male, and which are therefore necessarily unfruitful; that secret she is not let into. Yet, if incubation had been a subject of instruction or of tradition, it should seem that this distinction would have formed a part of the lesson; whereas the instinct of nature is calculated for a state of nature; the exception here alluded to taking place chiefly, if not solely, amongst domesticated fowls.

There is another case of oviparous economy, which is still less likely to be the effect of education than it is in birds, namely, that of *moths* and butterflies, which deposit their eggs in the precise substance, that of a cabbage for example, from which, not the butterfly herself, but the caterpillar which is to issue from her egg draws its appropriate food. The butterfly cannot taste the cabbage; cabbage is no food for her; yet in the cabbage, not by chance, but studiously and electively, she lays her eggs. There are, among many other kinds, the willow caterpillar, and the cabbage caterpillar; but we never find upon a willow the caterpillar which eats the cabbage, nor the reverse. This choice, as appears to me, cannot, in the butterfly, proceed from instruction. She had no teacher in her caterpillar state; she never knew her parent. I do not see, therefore, how knowledge, acquired by experience, if even it were such, could be transmitted from one generation to another; there is no opportunity either for instruction or imitation. The parent race is gone before the new brood is hatched. And if it be original reasoning in the butterfly, it is profound reasoning indeed. She must remember her caterpillar state, its tastes and

habits, of which memory she shows no signs whatever. She must conclude from analogy, (for here her recollection cannot serve her,) that the little round body which drops from her abdomen will, at a future period, produce a living creature, not like herself, but like the caterpillar, which she remembers herself once to have been. Under the influence of these reflections, she goes about to make provision for an order of things which she concludes will, some time or other, take place. And it is to be observed, that not a few out of many, but that all butterflies agree thus; all draw this conclusion, all act upon it.

But suppose the address, and the selection, and the plan, which we perceive in the preparations which many irrational animals make for their young, to be traced to some probable origin, still there is left to be accounted for that which is the source and foundation of these phenomena, that which sets the whole at work, the parental affection, which I contend to be inexplicable upon any other hypothesis than that of instinct. For we shall hardly, I imagine, in brutes, refer their conduct towards their offspring to a sense of duty or of decency, a care of reputation, a compliance with public manners, with public laws, or with rules of life built upon a long experience of their utility: and all attempts to account for the parental affection from association, I think, fail. With what is it associated? Most immediately with the throes of parturition, that is, with pain, and terror, and disease. The more remote, but not less strong, association, that which depends upon analogy, is all against it. Every thing else which proceeds from the body is cast away and rejected. In birds, is it the egg which the hen loves? or is it the expectation which she cherishes of a future progeny, that keeps her upon her nest? What cause has she to expect delight from her progeny? Can any rational answer be given to this question, why, prior to existence, the brooding hen should look for pleasure from her chickens? It does not, I think, appear that the cuckoo ever knows her young; yet, in her way, she is careful in making provision for them, as any other bird. She does not leave her egg in every hole.—*Paley.*

ON ANIMATED NATURE, AND ITS SEVERAL CONNEXIONS.

THE consideration of the various display of creative power and wisdom, which we incessantly witness in animal and vegetable life, will raise our admiration, astonishment, and delight, no less effectually than the contemplation of the material world will excite the awful and sublime. The diversity of nature, and the different instincts and peculiarities of living creatures, will form a gradual scale of relative perfection, rising by imperceptible degrees from the most incomplete plant, to man; and to which all the inhabitants of the earth, the air, and the waters, may readily be referred. In reflecting on these subjects we cannot avoid remarking that connexion which appears to subsist between the animal and vegetable kingdoms, and that easy transition which is made from one part of the animated creation to another: and though naturalists will acknowledge no intermediate gradations, and with an ingenious nicety discover some prevailing mark to attach every thing to a distinct class; yet we, reasoning from a more simple analogy, and judging from the less discriminating evidence of the senses, are apt to draw an undivided line through the world of life, and connect all nature together.

That inactive matter was combined with the vegetating

principle in the coral, was formerly a current supposition; but, according to later observations, that petrific substance is now known to result from the labours of a congeries of small animals, who form it for their habitation; so that having ascertained the origin of that as well as other lithophytes, we are no longer justified by any corroborating circumstance in maintaining, that the motionless mass is linked with the living creation. Beginning with the simple liverworts and mosses, and proceeding upwards, we find that some plants require finer soil than others, become more luxuriant in their growth, more complex in their form, and more exquisitely delicate and beautiful in the colours of their flowers. Indeed, so surprising are their various economy and perfection, that many ingenious men have attempted to demonstrate an endowment with perception and spontaneity, though without complete success; and Lord Kames has related divers curious instances of the locomotive powers of plants, that would even be admired in an animal. Several flowers close at sun-set, or on the approach of rain; some turn toward the solar rays, others recede from them; and an impending storm causes a contraction in the leaves of the trefoil. The sensitive plant shrinks at being touched; and a

certain species, named the *Dionæa*, closes on the perching of a fly, and crushes it to death. The leaves of the *Hedysarum* continue in a constant circular motion during the day; but on the arrival of the evening fall down from an erect posture to rest.

Buffon insists that the vegetable system is only a continuation of the animal in an inferior degree, and instances the fresh-water polypus as combining in its nature the properties of each. This little creature, indeed, possesses a wonderful power of reproduction, for if separated into any number of parts, each part will grow to another polypus as complete as the original; and the same peculiarity is apparent in the *Actinea*, or animal flower, which, notwithstanding its elegant flosculous appearance, is excessively voracious. Among those species which are unable to alter their situation, and which are, consequently, the most remote from perfection, may be enumerated the oyster and the sponge; the former appears incapable of any other action than opening and shutting its shell, and the latter gifted with no power but that of inspiring or expiring water through its pores or mouths. The internal structure of cetaceous fish approximates very nearly that of the land animals; and the warmth of their blood, with other distinctions foreign to the finny tribe, place them but one remove from the amphibious. The seal, crocodile, toad, and beaver, unite the quadruped and fish; the penguin from Magellan's Straits and the Cape of Good Hope, partakes of the nature of fish and bird: several of the winged race dive and swim to search for prey, such as the auk and albatross; besides which the *Exocoetus*, or flying fish, enjoys the privilege of soaring into the air by means of its extraordinary fins, that it may avoid the pursuits of its deadly enemies. The bat combines the bird with the quadruped, since the curious membranes which are appended to its feet permit it to fly notwithstanding its relation to the mouse; and the *Jerboa*, different from all other mice, to which order it belongs, hops on two legs, which is a distinction that characterises birds. The lowest and most imperfect creatures are admirably adapted to the situations for which Nature designed them; and though their organs of sense are few, yet those few are amazingly fine, and fully adequate to the preservation of their existence, and the supply of their wants.

In proportion to their defection, the directive principle of instinct is strong and impulsive: it points out to them the track which, by an invisible and irresistible power, they are obliged to pursue; suggests to a whole species the same provident system of economy; and, by an innate propensity, indicates the purposes for which they were created. As the scale rises, this principle becomes weaker, till, at the dawn of reason, it nearly vanishes; and several eminent men have

held an opinion, that the point of contact is observable among brutes, and that they are endowed with the reasoning faculty to a certain degree. Indeed, the dog, elephant, and monkey, and many other animals, display something exactly analogous to it; their docility, and the facility with which their habits may be changed or improved, are arguments illustrative of it, since these expedients are impracticable with those under the sole dominion of instinct. The high rank to which man is exalted above all the animated creation originates in the vast superiority of his reason; and he is distinguished by a noble rectitude of body, no less than by a wonderful capacity of mind. The *Homo Sylvestris*, or ourang outang, accounted the most perfect of the ape kind, though he be elevated above all other animals, and combine the human and brutal form, is, notwithstanding, incomparably inferior to man, who, uniting the material with the immaterial, occupies the middle space between the highest angelic orders and the lowest link in the vital chain, and is what Addison terms the *nexus retriusque mundi*. But the bounds beyond which matter can neither be divided nor accumulated, are evidently not assignable; in like manner can no plausible reason be alleged, why the perfections of intellectual life may not graduate as indefinitely, and comprehend as great a range of objects; on the contrary, the arguments which are adducible tend to substantiate rather than to invalidate the supposition. "If the scale of being rises," says the Spectator, "by such a regular progress, so high as man, we may, by a parity of reason, suppose that it still proceeds gradually through those beings which are of a superior nature to him; since there is an infinitely greater space, and room for different degrees of perfection between the Supreme Being and man, than between man and the most despicable insect."

Were we empowered to conceive the extent, and comprehend the meaning of Infinity, the distance of man from the Deity would indeed appear, and the immeasurable gap which remains to be filled by various orders of intellectual creatures. If we continue this series to the highest created being, we shall find him as far removed from divine perfection as man himself; and the greatest definite degree of intelligence which we are capable of imagining, is no nearer approximation, since his attributes being infinite, there will still exist a chasm too vast and indeterminate to be ever completed. Hence, though the whole creation be connected together in some particular manner, though the irrational and reasoning faculty, the animal and intellectual natures, approach each other by insensible gradations, it is totally impossible that beings of limited capacities, however immense and inconceivable those limits, should ever bear a comparison with the all-producing Cause.

S. N.

SAINT PAUL'S SCHOOL.

THIS excellent institution was founded in the reign of Henry VIII. by John Colet, D.D. Dean of St. Paul's, who resolved, that as the city was deficient in public schools, the sons of his fellow-citizens should partake largely of his gratitude for the success of his family, while the whole kingdom might at the same time enjoy the good effects of his bounty and of a classical education.

In 1509 he began seriously to carry his design into effect, and conveyed the whole of his estate in London to the Mercers' Company, in trust for the endowment of his school. He also drew up rules for the government

thereof, by which he directed, that "in the grammar-school there should be a high master, chosen by the wardens and assistants of the Mercers' Company; he was to be a man hoole in body, honest and vertuous, and learned in good and cleane Latin literature, and also in Greke, yf such may be gotten; a wedded man, a single man, or a priest that hath no benefice with cure, and no service that may lett the due business in the schole." The wages of this master was fixed at "a mark a veke, and a lyvery gown of four nobles, delivered in cloth;" and a pension of 10*l.* per annum when he was unable to teach any longer.

There was also to be "a surmaister, some man vertuouse in livinge, and well lettered, that shall teach under the maister." He was to be appointed by the high master, with the approbation of the surveyors, and to receive 6s. 3d. a week, and a livery gown of four nobles, delivered in cloth. The surveyors on acknowledging him as surmaster, are to expect him to do his duty, and say unto him "Your roome is no perpetuate, but according to your labour and diligence otherwise found not according and reasonable, warned of us ye shall departe."

A chaplain was appointed with a salary of 8l. per annum, and a livery gown of 26s. 8d. delivered in cloth. The rules as to the admission of children, and the regulations respecting them, are as follow:—

"There shall be taught in the scole, children of all nations and contres indifferently to the number of one hundred and fifty-three,* according to the number of the seates in the schole. The maister shall admit these children as they be offered from tyme to tyme; but first see that they can say the Catechyzon, and also that he can rede and write competently, else let him not be admitted in no wise.

"A child, at the first admission, once for ever, shall pay 4d. for wrytinge of his name: this money of the admissions shall the poor scholer have that sweepeth the schole and kepeth the seates cleane.

"In every forme one principal childe shal be placid in the chayre, president of that forme.

"The children shall come unto the scole in the mornynge at seven of the clocke, both in winter and somer, and tarye there untill eleven, and return againe at one of the clocke, and depart at five. And thrise in the daye prostrate they shall say the prayers, with due tact and pausing, as they be conteyned in a table in the schole, that is to say, in the mornynge, and at eveninge.

"In the scole, in no tyme in the yere, they shall use talough candell in no wise, but all only waxe candell, at the costes of they frendes.

"Also I will they bring no meate, nor drinke, nor bottell, nor use in the schole no breakfasts, nor drinkings, in the tyme of learnynge in no wise; yf they nede drink, let them be provided in some other place.

"I will they use no cock-fyghtynge, nor rydinge about of vycторыe, nor disputing at *Saint Bartilimew*, which is but foolish babbling and losse of tyme. I will also that they shall have no remedies;† if the maister granteth any remedies, he shall forfeit 40s. *totiens quotiens*, excepte the kyng, or an archbishop, or a bishop, present, in his own person in the scole desire it.

"All these children shall, every Childermas‡ daye, come to Paulis Church, and heare the *childe bishop* sermon; and after be at high masse, and each of them offer a penny to the childe bishop, and with them the maisters and purveyors of the scole.§

"In general processions, when they be warned, they shall go twayne and twayne together soberlye, and not singe out, but say devoutlye, tweyne and tweyne, seven psalms, with the Lettanye.

"If any childe, after he is receyved and admitted into the scole, go to any other scole, to learne there after the manner of that scole, then I will that suche childe, for no man's

suite, shall be hereafter received into our scole, but go where him lyst where his friendes shall thincke shall be better learnynge. And this I will be showed unto his friendes or other that offer him at his first presenting into the scole.

"WHAT SHALL BE TAUGHT.

"As touching in this scole what shall be taught of the maisters and learned of the scolars, it passeth my witte to devyse and determin in particular; but in general to speake and sume what to say my minde, I would they were taught always in good literature, both Laten and Greeke, and good authors, such as has the very Romayne eloquence joyned with wisdom, especially Cristen authors, that wrote their wisdom with clean and chaste Laten, other in verse or in prose, for my intent is by this scole specially to encrease knowledge and worshippinge of God and our Lord Christ Jesu, and good christen life and manners in the children.

"And for that extent, I will the children learne, first above all the Catechizon in Englishe, and after the Accident that I made, or some other, yf any be better to the purpose, to induce the children more speedely to Laten speche. And then '*Institutum Christiani Homini*,' which that learned Erasmus made at my requeste, and the booke called *Copia*, of the same Erasmus. And then other authors christian, as Lactantius, Prudentius, and Proba, and Sedulius, and Juvenecus, and Babbista Mantuanus, and such other as shall be thought convenient and most to purpose unto the true Laten speche. All Barbary, all corruption, all Laten adulterate, which ignorant blinde foles brought into this worlde, and with the same hath dystained and poysoned the old Laten speche, and the veraye Romane tongue, which in the tyme of Tully, and Salust, and Virgell, and Terence, was usid, whiche also Sainte Jerome, and Sainte Austen, and many holy doctors lerned in theyre tymes. I saye that fylthiness, and all suche abusion whiche the later blynde worlde brought in, which more rather may be called blotture than literature, I utterly abannyshe and exclude out of this scole, and charge the maisters that they teach always that is beete, and instruct the children in Greke, and redynge Laten, in redynge unto them suche autors that hathe with wisdom joyned the pure chaste eloquence."

(To be continued.)

SWALLOWS.—It may be fairly questioned whether any birds pass over an equal extent of surface with the swallow. Let a person take his stand, on a fine summer evening, by a new-mown field, meadow, or river shore, and among those of this tribe that flit before him, fix his eye on a particular one, and follow for a time all its circuitous labyrinths, its extensive sweeps, its sudden and reiterated zigzag excursions, little inferior to the lightning itself, and calculate the length of the various lines it describes. This little bird flies in his usual way, at the rate of one mile in a minute, which from the many experiments I have made I believe to be within the truth; and he is so engaged for ten hours every day.—*Wilson, Am. Orn.*

THE FIRST BOOK.—It is said that the first book printed in English, was "the Racuyell of the History of Troy," which is dated Sept. 19, 1471, at Cologne; but "The Game of Chess" is allowed, by all the typographical antiquaries, to have been the first specimen of the art.

* Alluding to the number of fish taken by St. Peter, (John xxi. 2.)
† Play days.

‡ Holy Innocents' day, 28th December.

§ The *boy bishop* was one of the choristers of the cathedral, who was chosen by the rest to officiate from St. Nicholas' day to the evening of Innocents' day, in the habit of a bishop; and if he died in the interval, was buried in that habit, or represented in it, as at Salisbury.

MORAL MAXIMS.

Ostentation and Pride—are vices naturally springing from a corrupt source. They owe their origin to the too good opinion which we have of ourselves, and which we are desirous of instilling into others. We build this good opinion either upon the talents we possess, or which we believe we possess; or we calculate something too much upon riches or birth. "Know thyself." This phrase cannot be too often repeated. Penetrate to the inmost recesses of your heart, and you will discover a thousand defects inseparable from humanity, which will humble you, and your selfish opinion of superiority will presently vanish. What are the qualities of which the higher classes of society are proud? Odious distinctions, founded upon prejudice!

Why should birth inspire you with pride?—To whom are you indebted? Had you the choice of your own existence? Even supposing that possible, would a long line of illustrious ancestors shadow your dishonourable conduct? Do men never degenerate? What! am I authorised in believing, because my ancestors were finely formed in nature's best mould, that my child cannot be a dwarf or deformed? However, should the figure of my forefathers be continued in my progeny, what right have I to conclude that mind also is inherited? Nevertheless, I am willing to own that an illustrious origin is not altogether a chimerical foundation to build upon, and that you have some reason to be satisfied on this score; but what are the duties thereby imposed upon you? The more noble the blood flowing in your veins, the more elevated ought your sentiments to be; for you have not merely ancestors to imitate, but also descendants to whom your duty should compel you to leave praiseworthy examples; for if nobility is in the blood, you cannot, without committing an act of injustice, transmit it less pure to your children than you received it from your father.

The pride of riches is still more contemptible.—Let the miser, the pest of society, be proud of his treasures; this is a feeling worthy of him. But that man, who inherits his forefathers' property—the reward of their merit—should be vain of a thing so totally beyond his control, is truly a fit subject of ridicule, seeing how much it is beneath his consideration. If any one has a right to boast of his riches, it is the individual who has acquired them by rendering his country some service, such as improving the mechanical arts, or extending commerce to distant countries, or in obtaining them by his own skill or economy.

Man is a strange creature. It would seem that the good opinion entertained of himself must naturally soften his manners, for if that opinion be well-founded, his merit ought to banish pride; nevertheless he raises himself above others in his own estimation, and despises them.

Contempt—is the subject which we pass on our fellow-creatures, after the unjust comparison above-mentioned is made; disdain is the effect of that judgment, the exterior mark of contempt. Contemn vice, but not man. Show your detestation of vice, when the interests of virtue are at stake, and your scorn will be proper. That man who disdains mankind merely because they are his inferiors in dignities, riches, intelligence, or what fashion or prejudice has imposed, is the tyrant of civilized society, and he ought to be regarded as a dangerous man. We need not present you with a representation of the train of evils which follow disdain.

It is said, If we have no pride we shall perceive it less in others; is not this enough to oblige us to check it? Doubtless politeness, under the semblance of modesty, has succeeded in some measure in banishing that fiend from society, by not saying or doing what might wound our self-love.

Deceitful veil!—yet how necessary to preserve the harmony of polished society! Politeness is a tacit agreement which mankind have entered into, for bearing with each other's defects, and lightly gliding over their follies. Scorn breaks this treaty; it makes men feel that their imperfections are not unobserved; and he who perceives himself the object of disdain, considers that all restraint is broken, and he revenges himself by hidden means, if your inferior; by open insult, if your equal; and by power, if your superior.

Disdain no one.—Should you meet a man whose conduct or vices are contemptible, pity him, avoid him, have no communication with him; but never disclose to an indifferent person your opinion. He will be sufficiently punished by his own infamy, without your exposing him still more. Let the vicious man be an example to you, let him be the means of correcting your own errors, or shunning those which obtrude themselves upon you in the world. Let him be unto you as the slaves, who were made drunk by the Spartans to show their children how hateful drunkenness was. When under the influence of passion, we are all children, the effects of vice strike us more than the severest precepts. In your commerce with the world, be like a skilful artist, who gleans instruction at every step; he observes defects for the purpose of rejecting them, and beauties, that he may represent them.

ON THE HABITS OF INSECTS.

THE actions and habits of the insect world display the same kind of animal mind and feeling which the birds and quadrupeds exhibit. If there be a difference, it is not of the disadvantage of the insects; for the ants, and bees, and wasps, and especially the smallest of these, the ants, do things, and exercise sensibilities, and combine for purposes, and achieve ends, that bring them nearer to mankind than any other class of animated nature. As much maternal care in depositing their eggs as fishes and oviparous quadrupeds exert, many insects show. The white butterfly roves till she finds the proper cabbage plant, in which she may lay her burthen most fitly for its welfare. The dragon-fly seeks the water as most proper for her brood; and the gad-fly so places her eggs, which are to be nourished in the entrails of animals, as to be on the spot from which their tongue will absorb them and convey them into their stomach. The earwig, like the fowl, sits and hatches its young—a remarkable analogy of maternal instinct. The field-bug seems also to indicate the feelings of a mother; and one species of spiders give manifestations of a resembling care.*

* The *Aranea Saccata*, common under clods of earth. It has a white silken bag attached to the end of her body, in which she has deposited her eggs. No miser clung to his treasure with more solicitude than this spider to her bag. She carries it with her every where. If you deprive her of it, she makes the most strenuous efforts for its recovery. If you restore it, her actions demonstrate her joy. She seizes it, and with the utmost agility, runs off with it to a place of security. Bonnet, to put her affections to the test, threw her into the hole of a large ant-lion in the sand; he seized her bag; she struggled till it loosened from her tail; she then regained it with her jaws, but his superior strength pulled it into his sand, and she chose to be dragged in with it rather than to forsake it. Bonnet forced her from it, but she would not leave the spot, though repeatedly pulled away. . . . When the proper time comes, she makes an opening in the bag for the young to come forth; they run in clusters upon her back and legs. She carries them about with her, and feeds them till able to help themselves. Many other species of the same tribe show a similar attachment.—*Sharon Turner.*

COLONIES OF ENGLAND.

With a Map of the World, showing all the British Possessions.

THE word COLONY, derived from the Latin *colonia*, is applied to places in which natives of other countries settle under any of the three following circumstances: viz. from their native country being too populous, or on some other account inconvenient for their residence; as conquerors; or as traders. The "colonies of England," as a general term, include all these three conditions. In some, Englishmen have settled simply for their individual convenience; in others, they have settled as conquerors; while in others, the chief object of their settlement has been to increase the amount and the facilities of the commerce of the mother country.

In point of fact, though the colonies of the ancients had their origin in conquest, and, for the most part, had veteran soldiers of the conquering nations for the first settlers, yet even these were made to benefit the commerce of the mother countries, in some cases, merely as consumers of its production, and in others, as well in that character, as places of rendezvous for fleets, and as depôts of various merchandize.

Within the last few years, colonies, and the whole system of colonizing, have been made a subject of complaint, not solely by the mere gossips who take refuge in politics when their only other subject of conversation, the weather, is fairly exhausted, but even by statesmen and writers from whose talents and reputation larger and sounder political judgment might fairly be anticipated. When complaints of this kind are once fairly set on foot, no matter how unfounded in fact or how ill-supported by argument, they make their way from class to class, and acquire from their very repetition an almost absolute power over the minds of those who are unaccustomed to deep thinking, or unskilled in that important mental process, analysis. Previous, therefore, to giving (as from time to time we shall) succinct and brief histories of the most important of the English colonies, it may be as well slightly to glance at the real facts bearing on this question,—“Are our colonies useful to us, or injurious?”

As to the wisdom of the system of colonizing, we find it supported by Machiavelli and by De Witt; the former a profound thinker, and the latter a great statesman both in practice and in theory. Since the appearance of Adam Smith's treatise on the “Wealth of Nations,” however, it has gradually become more and more the custom to speak of colonies as being injurious to the mother country; first, by decreasing its population; and second, by the expense which it is put to in retaining and defending them.

To the first of these objections, which, in fact, since the “Essay of Malthus on Population,” few persons would think of maintaining, the answer is very brief and conclusive, namely, that it would not be easy to name that modern nation—(America excepted; and that, though politically speaking it is a nation, and indeed a powerful one, yet taking a philosophical view of the scantiness of its population as compared to the immensity of its territory, is only a colony itself)—which could not with great advantage to all parties deport a great many of its members; and that if such a nation is to be pointed out, then that nation will form the *exception* and not the *rule* of a sound thinker upon the colonial system.

The objection on the score of expense is by far the more weighty one, and is, besides, one which is very likely to meet with pretty general assent; first, because we are a people quite as fond of grumbling at expense, as, in our secret hearts, we are of being in reality liberal; and secondly, because the great advantages we really do derive from our colonies are afforded to us just circuitously and silently

enough to allow of nineteen-twentieths of us enjoying the advantages without knowing or caring where or what is the source of them.

In the first place, we must beg to remark that by far too sweeping a charge is made against the colonies of burthening us with the expense attendant upon retaining them. Some of them, indeed, from their peculiarity, are directly expensive to us; but these afford, as will hereafter be seen, indirect advantages to us, which more than counterbalance the direct charge. Even these colonies, then, can no more justly be accused of being an expense to us, than the merchant's cargo can be called injurious to him when he receives for it not only all it has cost him in purchase and carriage, but a profit per centage over and above.

It is to be considered that a great deal of what we call the expense of retaining our colonies, is, in point of fact, an expenditure to which we should still be liable if our colonies were sunk in the sea, or duly made over to a foreign country. It is not for a moment pretended that *commerce* is to be dispensed with. Well, then, our trading vessels must be protected by the presence in distant seas of our ships of war; and it is on account of these, which we thus see are *not exclusively employed* in protecting our colonies, that the heaviest item of what is called the expense of our colonies is incurred. And even where great *direct* expense is incurred by us on their behalf, we are still very largely benefited, for the population of the colonies are our *CUSTOMERS*; we sell to them goods which, if they were independent, they would be more likely to buy of other nations than of us; and, thus, our manufacturing population owe to the colonial system all that labour,—only another word for happiness, comfort, and content,—which is demanded for the supply of the colonies.

Again, a very great portion of the merchandise we *export* to other European nations we have previously *imported* from our colonies; and that, too, in exchange for our own manufactures. Annihilate the colonial system, and what would follow? This:—unable to compete with foreigners, whose artisans live worse than ours, and receive lower wages, and whose goods could consequently undersell ours, we should throw tens of thousands out of employment; we should lose the profit upon exporting to other European nations the goods we now purchase with our home manufactures; our armaments would still have to be kept up, unless we were insane enough to sink into a lower rank among nations; but our *trading vessels* would, at one fell swoop, be deprived of the chief part of that immense source of profit—the *carrying trade*.

Surely here are considerations which ought to restrain us from flippantly speaking of the “expense,” from which we derive so vast and multifarious a profit! Even this bare *allusion* to these advantages will, we are sure, suffice to show our readers that our colonies are something more precious than a mere burthen and dead weight. And when, step by step, we shall have shown the extent of our trade with each important colony, and balanced the *indirect profit* which we wholly owe to the colonial system against the *direct charge* which is only in part incurred on account of the colonies, we shall, we are certain, show that the colonial system has been greatly misunderstood and misrepresented, and that, circumstanced as we now are, *every* class of men in England is all but vitally interested in their preservation and in their prosperity.



(Hottentots frying Locusts.)

THE HOTTENTOT RACE.

CAFFRARIA, that part of Africa which lies between Congo, Negroland, Abyssinia, and the ocean, is divided into Caffraria Proper and the Land of the Hottentots.

The Caffres are taller and more robust than the Hottentots, but they are, very obviously, only two varieties of the same race or family of mankind, and the same words will serve accurately enough for all general purposes to describe them both. Savage as they are, they yet have a regular form of government. Their kings or chiefs hold their authority by hereditary right; but they seem to have little real power beyond the cruel one of selling their people for slaves; upon which dreadful traffic, in fact, they almost wholly depend for their revenue.

Both Caffres and Hottentots believe not only in a Supreme Being, but also in a future state of rewards and punishments; but the Hottentots have by no means so exalted or pure a notion of the Deity as that which obtains among the Caffres. The Hottentots are remarkable for their short curled hair, which closely resembles wool, for their high cheek bones, low foreheads, and thick lips. In colour they are perfectly black, and in their habits they are exceedingly filthy, especially delighting in smearing their bodies all over with oil or grease. Barrow and Pringle, both of whom travelled extensively in South Africa, are of opinion that the Hottentots, however degraded at present, are quite susceptible of being made really civilised; but, unhappily, civilised nations are too ready to seize upon the bad points in the character

of the uncivilised people with whom they come in contact, as at once a pretext and justification for the worst and most atrocious violations of equity, humanity, and religion.

Of a particular tribe of Hottentots Mr. Barrow says—“Some of the women were very elegant figures, and possessed a considerable share of vivacity and activity. Their chief article of dress was a small leather apron, bordered with shells and beads, and ornamented with six or eight chains, in pairs, which hung down to the ground.” But though some of the Hottentots are exempted from the peculiarities of conformation and countenance which we commonly attribute to them, Mr. Barrow, generously as he vindicates these ignorant and therefore oppressed people upon other points, does not conceal that good looks and decency of conduct are mere exceptions to the general rule among them.

The various expeditions which both Dutch and English settlers in South Africa have made against the Hottentots have, of course, had their due effect in rendering them far less qualified for civilisation than they otherwise would have been. But both in Barrow, and in the “Sketches of South Africa,” by the late amiable poet, Thomas Pringle, there are abundant evidences that a kinder and more conciliating conduct on the part of Europeans will, at no distant period, have the effect of bringing even the hitherto despised and trampled Hottentots within the pale of religion, civilisation, morality, and happiness.

No. II.—SELF-INSTRUCTOR IN ESSAY-WRITING AND COMPOSITION.

OF SPEECH AND ITS USES.

EVEN reason itself would be less advantageously available to man were he not gifted with the power of speech. By this excellent medium men are enabled to interchange their thoughts, and, as it were, to perpetuate and transfer their experience. It is by this singular faculty that man is enabled so greatly to excel the most gifted and intelligent of the brutes. Considered in this light,—and in this light it always ought to be considered,—viewed as the peculiar and most important prerogative of the human race, co-equal in importance even with the almost divine emanation of reason, is not speech a power which ought not by any means to be perverted? Is it not one which we ought never to exercise but in such a manner as to do honour to our Creator, and to prove ourselves worthy of the faculties he hath bestowed upon us? No one will venture to answer in the negative; for there is no one, possessed of reason, who values his character so lightly as to forfeit it by uttering such a monstrous, and palpably unfounded denial. Perhaps, however, notwithstanding the impossibility of procuring such a denial in *terms* from any one of sense and character, there is no denial which *tacitly* is more frequently made. The horrid, impious, and exceedingly vulgar practice of profane cursing and swearing we say nothing about—that is confined to the very vulgar and the very ignorant; and youth, we trust, are not even aware of its existence. That is, indeed, an awful misapplication and perversion of the faculty of speech; but in our work it needs not to be mentioned.

Though not so awfully wicked or so disgustingly vulgar as the practice to which we have alluded, there are many other perversions of speech which are much more common, and which are very deserving of our reprehension and detestation. The worst, perhaps, of these is the but too common custom of scandalizing the characters of the absent. In this practice meanness and cowardice are always commingled, and in most cases gross falsehood also is superadded to them. We are aware that many consider this practice a *very innocent* one, and indulge themselves in it nearly every day of their lives; but these persons would be aware, did they reflect a little more, and talk a great deal less, that in indulging themselves in this very *innocent* practice, they offend at once against the law of God, the law of the land, good morals and good manners. Each of these they violate every time that they speak falsely of an absent person, in order to cast blame or ridicule upon him or upon her.

Could the votaries of this most contemptible, as well as mischievous practice, only listen, unperceived, for half an hour to the description of *themselves*, as given by some of the dear friends whom they have assisted in tearing to pieces the reputations of other persons, we should soon have them denouncing the practice as being very unjustifiable and very barbarous; both of which it most undoubtedly is. But without being guilty of profane swearing, or of calumnious speaking, we may yet prostitute the faculty of speech. Of what long-drawn nothings do but too many conversations, so styled at least, consist! The weather, dress, puerile amusements past, and still more puerile amusements contemplated—are these topics upon which we can profitably or even justifiably employ the most conspicuously excellent gift of our wise and benevolent Creator? Surely, surely, not. We may, perchance, be told that we cannot be expected always to be engaged in study. As far as this assertion relates to very abstruse and very difficult study, we reply, *certainly not*; but even our recreations ought to be of such a nature as to mingle profit with our amusements. Amid the vast store of topics of an interesting nature with which the natural and

artificial objects by which we are surrounded present us, we certainly can have no occasion to resort to mere babbling. We *can* converse reasonably, agreeably, and profitably, if we do but desire to do so; and certainly there is not a more infallible proof of a mean mind or a bad education than that which is afforded by that kind of unmeaning talkativeness which is called, appropriately enough, tittle-tattle.

Even for their own character's sake we advise our young readers to abstain most rigidly and perpetually from every thing in the shape of idle and profitless gossip. They will never win the confidence of the wise, or the esteem of the good, if they once incur the charge of conversational frivolity. This charge being once made against them, they will never be able wholly to free themselves from the discredit attached to it; but they will not only, by an indulgence in this frivolous gossip, incur the imputation of *being* shallow coxcombs, for the indulgence of it will actually render them so. A shrewd and attentive man who cannot read will gather much more knowledge by conversing with sensible men than a man who can read a dozen languages will from books, if he converse with the shallow upon frivolous subjects.

It is not necessary for us to particularize any topics upon which youth will find it both to their immediate and to their permanent advantage to converse,—for common sense and common observation will suggest fitting topics for fitting times,—we will therefore extend this paper no farther than just to observe, that it were better to be perpetually silent than to misuse so important a gift as speech by using it to injure the characters of others, by speaking calumny, or of our own by speaking unmeaning or nonsensical words.

LITERARY CHARACTERISTICS AND CURIOSITIES.

MICROGRAPHY.—Writing small, so that it is not to be deciphered by the naked eye, seems to have been very early understood; for Pliny, the Roman historian, says, that Cicero once saw Homer's Iliad written so small that it might be contained in a nutshell; and Ælian mentions an artist who wrote a distich in letters of gold, which he enclosed in the rind of a grain of corn. In fact, there are the names of men on record, both ancient and modern, whose glory consisted even in micrography, or small writing. Menage says he saw whole sentences which were not perceptible to the eye without the aid of a microscope; and pictures and portraits which appeared at first to be lines and scratches drawn at random: one of them, says he, formed the face of the dauphiness with the most pleasing delicacy and correct resemblance. He farther says, that he read an Italian poem, in praise of this same princess, written in the space of a foot and a half, by an officer, which consisted of some thousand verses. Nor have our own countrymen been behindhand in minute writing, but have equalled any thing of the kind on record. Peter Bales, who lived in the reign of Queen Elizabeth, astonished the eyes of beholders by showing them what they could not see. In the Harleian MSS. 530, there is a relation of "a rare piece of work brought to pass by Peter Bales, an Englishman, and a clerk of the Chancery. It appears to have been an English Bible, written so small, that it might be contained in an English walnut, no bigger than an hen's egg. The nut holdeth the book; there are as many leaves in this little book as the great Bible, and he hath written, as much in one page of his little leaves as a

great leaf of the Bible." And we are told that this wonderful and unreadable copy of the Bible was "seen by thousands." There is a drawing of the head of Charles the First, in the library of St. John's College, Oxford, wholly composed of minute written characters, which, at a small distance, resembles the lines of an engraving. The lines of the head and the ruff are said to contain the book of Psalms, the Creed, and the Lord's Prayer. In the Fitzwilliam Museum at Cambridge, is a similar head (we think) of George the First, presented to that collection by the late Professor Hague; and in the British Museum is a drawing representing the portrait of Queen Anne, not much above the size of the hand, on which appear a number of lines and scratches, which the librarian assures the spectators include the entire contents of a thin folio, which, on this occasion, is carried by him in the hand.

GUILTYLESSNESS OF ERRONEOUS BELIEF.

THERE is nothing which has tended more to obstruct the progress of truth, than the doctrine that erroneous opinion, though sincere belief, for reasons which appear to the mind conclusive, is chargeable with guilt. Under the influence of this pernicious impression, many ingenious minds have felt as much horror at the thought of examining certain opinions, as of mixing in the society of the most abandoned criminals. As knowledge advances, this impediment to its future progress will no longer exist; for it will be clearly perceived, that, though the connexion between opinion and conduct is so intimate as to render it of the utmost consequence that right opinions should be adopted, yet that the one is not invariably and necessarily consonant to the other,—that the warmest advocate of a principle may view with abhorrence the course of conduct which naturally results from it, or that its evil tendency may be counteracted by the influence of some other opinions, in which he is a firm believer; that if, owing either to the want of better information, or the potency of previous impressions, the evidence of the truth of a pernicious principle appear *convincing*, *he can no more help adopting it* than he can avoid seeing a luminous object which is placed directly before his eye;—that so long as those impressions remain, were he *not* to admit its truth, he would be infinitely more a criminal than he can be by adopting, from *sincere conviction*, the most false and pernicious doctrine which ever gained the momentary credence of the human mind; that his error in *this* case is *his misfortune*, *not his crime*, and ought to excite commiseration and sympathy, not aversion and avoidance;—that guilt consists in doing that which is known to be wrong; error in receiving as true that which appears to be so, but which really is false. The criminal act against their convictions or duty, the erring obey them. Were the criminal to resist successfully the impressions which lead them wrong, they would be virtuous; were the *erring* to do so they would be guilty, according to the precise definition of guilt.—*Dr. S. Smith.*

THE VENERABLE OAK.

PRONE as men unfortunately are to undervalue—or at the least to be forgetful of—those benefits of which they have never experienced the privation, there is, we think one benefit which we of England do *not* undervalue or forget—our gallant navy. The "wooden walls of old England" are

popular among all ranks, all ages, and both sexes; and all of us who love our country, and value the peculiar blessings of peace and liberty, remember, and gratefully acknowledge, that those blessings are in no slight degree owing to our invincible navy.

But probably there are many who are not quite so well aware of the great share which the oak has in giving us that naval supremacy of which we are so justly sensible. And yet but for the oak our navy would be greatly inferior to what it now is, for, beyond any other wood, it combines in just the requisite proportions the four grand qualities of ship-timber—hardness, toughness, flexibility, and non-liability to splintering. This last-named quality makes oak especially valuable for the construction of ships of war; for when in action the men are far less in danger of being struck down by the shot of the enemy than by the splinters flying from bad timbers struck by those shot.

Malte Brun, we believe, and Buffon, have pointed out that those animals which are the longest in attaining to their full growth are also the longest lived. When pointed out, indeed, the fact seems indisputable enough; and if the elephant may be taken as a specimen of this law of nature as regards the animal world, the oak will equally well exemplify it as regards the vegetable world.

The oak grows for a vast number of years, but so gradually that there is not, as we believe, an instance on record of its increasing in diameter more than fourteen inches in eighty years. Remembering this fact, we may easily judge of the prodigious time it takes to complete the full growth of the oak, by comparing this slow increase of bulk with the vast bulk of the full grown oak: thus, for instance, in 1764, there was at Bromfield wood, near Ludlow, an oak, the property of Lord Powis, which measured in girth sixty-eight feet!

How long the oak will live after it has attained to its full growth it is not easy to say, for the timber of this "monarch of the forest" is so valuable that the very large ones are rarely indeed left long enough to decay. But a single fact will give us the means of at least guessing at the wonderful duration of the life and vigour of this invaluable mainstay of our navy. William Rufus, as the veriest tyro in our history is aware, was killed by the glancing of an arrow from a tree in the New Forest, in Hampshire. The tree in question must even then have been of tolerable size; and yet it is even now not wholly decayed, though seven hundred and thirty-six years have elapsed since the unfortunate death of the royal sportsman!

Oak timber, when cut down, is stripped of its bark, and allowed to lie unused for three or four years. This is in order to dry, or, in technical terms, to "*season*" it; its being perfectly well dried has a great effect upon both its toughness and durability. And even the bark thus stripped from the oak is very importantly serviceable; it is one of the ingredients—and a very powerful one—with which the tanner converts the skins of beasts into leather: and even when it has served this valuable purpose it is useful to the gardener in making hot-beds for the growth of pine apples and other exotics. The leaves and even the sawdust of oak are of use in tanning; and the former of these is the only native vegetable production of our country which is used in the extensive business of dying fustian. The bark of oak being powerfully astringent, is sometimes used in medicine as well as in manufactures.

The *galls* of oak, excrescences formed on its leaves and buds, are subjected to a weak solution of vitriol, which they render perfectly black; and this capability has made them very useful in dying, ink-making, &c. The seeds of the oak, called acorns, are bitter, and very astringent; the

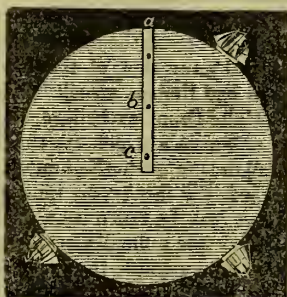
one quality, in fact, being most intimately connected with the other. Both of these qualities, however, may be expelled by soaking the acorns in cold water, or still more readily and completely by boiling them; and after having been thus treated, there seems to be no room to doubt that, if dried and ground, they would furnish both a wholesome and palatable

substitute for wheaten-flour in cases of scarcity. In fact, some of our continental neighbours prepare them in this way as a substitute for coffee; and that there is considerable nutritive matter in them is certain, from the fact that even cold pressure extracts from them a considerable proportional amount of oil.

No. II.—SELF-INSTRUCTOR IN ASTRONOMY.

ATTRACTION OF GRAVITATION ILLUSTRATED.

ALL substances are made up of minute parts, which philosophers call *atoms*, and each possesses an attractive power in proportion to the quantity of matter, or number of atoms of which it is composed. Hence any large substance suspended in the air will attract or draw towards it all small substances or particles that may be floating near it, and this it will do equally on all its sides: and by the same rule, a large body floating on the water will also sensibly attract small ones to it. So the earth having the greatest degree of ponderosity or weight, attracts, or powerfully draws to its surface and towards its centre all bodies upon it, and at a certain distance from its surface. This property is called the *attraction of gravitation*.



GRAVITATION.

The degree of weight of a substance of any kind arises entirely from the earth's attractive property. The above diagram represents the earth with a hole or kind of well cut to a sufficient depth as to be below the centre. This will explain the laws of the attraction of gravitation. Thus, if an iron ball were dropped from a balloon a mile above the surface of the earth, immediately over this well, the motion

of the ball downwards would be expedited in proportion as it arrived near the earth's surface. Directly after passing the orifice of the well at *a*, before mentioned, on its way to the centre, the power of attraction would begin to slacken; and when the ball arrived at *b* its descent would be but slow, arising from the counter-attraction of the matter above it, so as very much to decrease its sensible weight. At length when the ball, after being deprived of all sensible weight by the strong attractive power of the matter above it, has laboured to the centre of the earth, it cannot possibly fall further or pass from it, from its having the constant gravitating force of nearly 4000 miles of aqueous, and terraqueous matter pressing on all sides. Hence the tendency of all matter is to the common centre, and the terms *upwards* and *downwards* are explained by lines radiating from the centre of the earth: from the earth's surface to the centre is *downward*, while from the centre to the surface, is *upward*. It is by this law of attraction that ships, trees, houses, men, &c. stand firmly on any part of the terraqueous globe, as in the case of ourselves, and our ~~an-~~ ^{feet}, or those whose feet are to our feet; nor shall we, or will they, move from this line of attraction, but by an impetus having more force than the power which attracts the ship or man, &c. to the earth's surface. Instances of these opposing powers we often find in wind, as on the sails of a ship, or against a tree, and in the muscular action we often see exhibited in the frame of man.

No. I.—SELF-INSTRUCTOR IN USEFUL KNOWLEDGE.

SHORTNESS OF HUMAN LIFE.

WHEN we reflect upon an elapsed year, what a brief space does it seem; and of a few such brief spaces even the longest human life consists! We do not need, it is true, to be reminded of the shortness of life. All mankind are sufficiently aware of it: from the peer to the peasant all remark upon it, and all deplore it. But though we all know that human life is short, we make of that knowledge, as we do of many other kinds of knowledge, a very little and imperfect use. Short as our life is of necessity, we make it still shorter by choice: we complain that we have but little time allotted to us for activity and consciousness, and yet, with a gross and unpardonable inconsistency, we put all our ingenuity into requisition to make that little less. Of the comparatively speaking few years which are allotted to our existence upon earth, a very considerable portion is, by our very nature, destitute of actual consciousness. The early years of our infancy are almost as completely consumed, as regards practical usefulness, as that portion of our maturer years which is devoted to sleep. But besides sleep and infancy, there is the giddy thoughtlessness of youth, during which

we make but little more practical use of our time than in sleep and infancy. Let us take all these drawbacks upon our time into consideration, and how very short will even the longest human life appear! How very inconsistent, then, and blamable also, are we to render it still shorter by wasting any of those fleeting hours which are at our command! If we were to sit down calmly and seriously, and calculate how many hours we daily consume in doing nothing, or in doing what is utterly useless, we should start, appalled and ashamed, from the picture of our own criminal and injurious wastefulness.

Of our gold and our silver most of us are careful, but of time, which, once lost, can never be recalled or regained, we lavish a large portion, even while we are uttering complaints of the scantiness of the quantity allotted to us.

If, to the considerations already touched upon, it were necessary to add any other arguments in favour of a more careful and judicious use of time, we need only allude to the uncertain tenure upon which we hold it. Even the longest life is short; but the very youngest among us is uncertain

whether he shall survive a single day, or even a single hour. It is not upon the hoary head and the palsy-stricken limbs alone that inexorable Death fixes his regards;—the cradle itself is not exempt from his attacks. And the most accurate calculations which have been made, or can be made, go to show that a greater number of the human race perishes before seventeen years of age than after that period.

Let our youthful readers, then, consider upon how frail a tenure they hold their time, and make the most prudent and praiseworthy use of every portion of it. All their other possessions may be replaced or dispensed with; but

time, if they once lose it, they never more can recall. Even while they lament the loss of that which has flown by, the swift minutes fly, and render the loss still greater.

Would you, dear youth, enjoy long life? Live then during all your waking hours; for it is not a great number of years that constitute long life, but time well and diligently employed. It is this that makes even a short life, as to years, a long one; and it is this, also, that gives reverence and venerable grace to the grey hairs of him who sojourns long upon the earth, and sees whole generations born and buried.

DEMOCRACY ILLUSTRATED, OR THE RISE AND FALL OF THE ANCIENT REPUBLICS.

No. I.—SPARTA.

THE free states of Greece were originally monarchies; and their subsequent excessive democracy was the consequence of their falling into the very common error of supposing one extreme an infallible remedy for the evils inflicted by the opposite extreme. Having experienced the evils of power abused by kings, they removed that evil by lodging power too entirely and extensively in the hands of the people. Most of those who have written upon the ancient republics have either wholly overlooked, or, at the very best, have very greatly undervalued this fact; a fact, however of immense importance towards a full and fair appreciation of the histories of those republics. The accurate Plutarch assures us that Sparta was most wretchedly situated of all the Grecian states when the great Lycurgus arose to vindicate the good portion of the law, and to reform that portion of it which was bad.

The rabble of Sparta had succeeded in so completely trampling both upon the kingly office and the laws of the country, that all authority was a mere name; and, excepting in name, the vilest dregs of the populace were the rulers and the lawgivers of Sparta. Just as this state of confusion had arrived at that point at which absolute anarchy and civil feud begin, the elder brother of Lycurgus died, and Lycurgus became the guardian and regent of his brother's infant child, who succeeded to a moiety of the Spartan crown. Finding that the queen-mother and her friends viewed his measures with suspicion and hostility, he voluntarily resigned his power, and passed some time in foreign travel. Thoroughly acquainted with the numerous evils which had crept into the laws of Sparta, and honourably and fervently desirous of being of real service to his native country, he made a point of visiting the states most famed for the prosperity and morality of the people—that surest of all the tests of a good and a wise government. Having noted all that seemed most excellent in the various governments which came beneath his notice, he drew up a digest of a scheme of reformation as vast as wise; so vast, indeed, that when we consider how much he opposed himself to the worst and pettiest feelings of our nature, which is alike in all places and at all times,—it almost seems incredible how any man could be bold enough to conceive, or fortunate enough to realize it. Just as he had completed his scheme, a happy concurrence of circumstances placed him in a position to put his fine and resolute conceptions into practical operation. For though Lycurgus had only for a brief space administered to the affairs of the state, as regent and guardian of his infant nephew, the people had, even in that brief space, had abundant experience of his wisdom and integrity; and it was all but unanimously demanded that his ability should again be made available to his country. The kings were in

no position to dispute this demand; and Lycurgus returned to Sparta to find affairs in such a state of anarchy, that all parties were wearied out, and sincerely desirous to see an end put to the state of things from which all in turn experienced inconvenience and annoyance.

To his shrewd and acute mind—by this time largely stored with data gained during his foreign travels—it at once appeared that there was a radical and vital fault in the Spartan constitution; there were but two governing powers, the kings, and the whole mass of the people. The tyranny of the one, or the turbulence and love of change of the other, would, he saw, at any time suffice to throw the whole affairs of the nation into confusion, and involve the entire population in the miseries and horrors of a sanguinary civil war. The instant, therefore, that Lycurgus obtained authority to commence his mighty work of reformation, he established a senate, and rendered that senate a barrier equally strong against the tyranny of the kings on the one hand, and against the rampant and flagrant folly of the people on the other hand. With the regal authority—which was absurdly enough hereditary in two families, descended from a common ancestor,—he did not venture openly or avowedly to interfere; but he took care to provide the senate with the means of virtually ruling the kings as well as the people, whenever there should be fitting necessity.

The senate was so obviously a wisely chosen arbiter and moderator between despotism on the one hand, and mob-lawlessness on the other; and the power he gave to the people themselves of electing their senators was so well calculated to gratify and to elevate the people, that Lycurgus soon found himself in possession of popularity enough to warrant him in proceeding upon that difficult and dangerous business—the rendering individuals worthy of an improved political position.

To declaim against this or that form of government; to pass flippant, voluble, and unqualified censure upon particular officers, or particular measures, may do well enough for your mere demagogue. He and his hearers are extremely worthy of each other; the hearers being as grossly gullible as the speaker is entirely unprincipled. But to apply real remedies to real abuses; to aid a mighty and an ignorant people without pandering to their bad passions, or neglecting to reproach them with their follies; above all, to address every private man with the full force and bitterness of a *tu quoque*—that is indeed an arduous and a perilous task, and one which nothing short of a high, a holy, and a most sincere love of country, could enable any one to go through. Lycurgus saw the sources of the public disorder in the numerous instances of private corruption; and he set himself to the task of reformation with the

courage of a soldier, the zeal of a philanthropist, and the ability of a philosopher.

Perceiving that the frightful poverty of one portion of the population, and the excessive wealth and luxury of another portion, gave rise to infinite mischief, Lycurgus, as soon as he fairly established the senate, caused the whole of the land of the country to be equitably divided among the whole population. Having made this important step, he next appointed public tables, at which all Spartans, of whatever rank, were bound to take their meals. The fare to be had at these tables was of the plainest and simplest description; and no one, not even the kings themselves, was allowed to eat elsewhere than at these tables, on pain of being heavily fined. The perfect equality in this respect was rife of great advantages. No one could badly cultivate his land, for every one had to furnish his monthly quota of provisions: hardness of frame was the inevitable result of the temperate diet; and general content, as well as general morality, was sure to ensue from the fact of *all* being in the daily enjoyment of necessities, while no one could desire wealth for which the law rendered it impossible to procure the means of effeminate and selfish indulgence. Nor did he content himself with even this degree of precaution against that too great wealth of the few, which is so rarely unaccompanied by the equally great misery and poverty of the many. Lest any evil should arise from the mere love of accumulating wealth—and he was too thoroughly acquainted with the human heart to be unaware that even the impossibility of using wealth is by no means inevitably destructive of the love of accumulation—he had the gold and silver currency abolished, and a very heavy and inconvenient iron coin, of but small value, substituted for it. Commerce, favourably as Sparta was situated for it from her great extent of sea coast, and from the number and excellence of her harbours, he positively interdicted; and, as far as it was practicable, he discouraged all intercourse between Spartans and foreigners, lest the stern virtues of the former should become corrupted by the precepts and the example of the latter.

Thus far Lycurgus had dealt only with the adult population of Sparta. But he was too wise to overlook the importance of training up children properly, in order that his laws might be obeyed and maintained in future generations. "Children are the property of the state, to whom only should their education be entrusted," was his maxim; and from their earliest infancy he had them treated so firmly and so unindulgently as was best calculated to give them hardy bodies and manly minds. At seven years of age they were taken from the care of the nurses, and placed in the classes of the school in which their education, properly so called, was commenced. Here their food and clothing were of the simplest and scantiest; and every species of endurance, even to that of the severest scourging, was required of them. The effect of this physical education greatly aided the mental cultivation bestowed upon them; and that was of the most useful and practical kind. Plutarch tells us that they learned all that was requisite to make them good and useful citizens, while Lycurgus carefully excluded every thing that was *not* useful.

If we had not a single proof of the genius of Lycurgus beyond the fact of his having succeeded in dividing the property of the land equally among all the inhabitants, and in causing equally the highest and the lowest to submit to a diet and to general circumstances, the most disagreeable possible to our worst (which, in a dissipated people, are also the strongest) feelings, that fact would abundantly justify us in speaking of him as a truly great, original, and remarkable genius. But in fact, the more closely we examine the

details of his scheme the more reason we shall find to admire the singular tact and art with which he took advantage of every circumstance calculated to forward his views. By establishing the senate, he conciliated the nobility, and made them in no slight degree his mere and passive tools; and whenever he found the people at large less cheerfully pliant than was their wont, he skilfully procured for the scheme he desired to carry into effect, the sanction of the oracle at Delphos.

In courage, as in wisdom, Lycurgus was admirably well calculated for his self-imposed task of law reform. When he proposed the equal partition of the lands, the boldness and unpopularity, among the rich, of so startling a proposal, caused a very serious and dangerous commotion. Lycurgus himself was assaulted, and had one of his eyes knocked out. At sight of the blood of a man so wise, and from whose wisdom they already enjoyed so many advantages, and anticipated so many more, the populace became enraged, and seized Lycander, one of the ringleaders, and left his punishment to the discretion of Lycurgus. Smarting as he was with pain, and indignant, as so fine a spirit as his must have been, at the gross and ignominious outrage committed upon his person, Lycurgus frankly and generously forgave the hot-headed young man, and thus converted a violent opponent into a zealous and daring partizan.

To the very close of his life, Lycurgus showed his devotedness to the best interests of his country. Having entirely altered the constitution, and having seen all his laws fairly, fully, and efficiently in action, he put to the oracle of Delphos a question, to which the following answer was returned:—"The laws of Lycurgus are eminently calculated to make the Spartans virtuous and happy; and Sparta will continue to be the most renowned city in the world as long as her citizens persist in the observance of the laws of Lycurgus." Having published this answer among his countrymen, and thus done all that was possible to secure the permanence of his laws, he went into voluntary banishment, having previously extorted an oath from his countrymen that they would make no alteration in his laws until his return. *He never returned*; and though authors differ as to the time, place, and manner of his death, all seem to agree that he took means to prevent even his remains from being carried to Sparta; and thus prevented the possibility of the Spartans feeling released from their oath.

(To be continued.)

BITUMENS, OR MINERAL OILS.

NAPHTHA is a transparent fluid, of a very light brown colour. It abounds most in Persia, though it is found also in Japan and in Italy. It is very inflammable, and is burned in lamps by the inhabitants of all those countries. Petroleum is rather less transparent than naphtha, and varies considerably in its colour according to the place in which it is found. In some places it is a dark brown, in others green, and in some even red. Petroleum is considerably more common than naphtha. It is found in most parts of Asia, and in Hungary: it is also found in many parts of England. The county of Shropshire is particularly noted for the abundance of petroleum which it produces.

Like naphtha, petroleum is inflammable; but it does not appear that either of these fluids possess any medicinal qualities, they are therefore not deserving of a more detailed description.

THE GREENLAND FISHERIES.

At this time, when the public attention is so much attracted to the subject of our Greenland Fisheries, the following account of the distresses endured by eight men, who were compelled to inhabit this desolate region for a period of nine months and twelve days, may not prove uninteresting. It is chiefly drawn up from the personal narrative of Edward Pellham, one of the sufferers, and who published an account of the numerous hardships endured by himself and companions, in the year 1631. The tract is dedicated to the Governor and Company of the Muscovia Merchants in London.

On the first of May, 1630, three ships, under the command of Capt. William Goodler, set sail for the whale fisheries on the coast of Greenland. Having a fair wind the vessels arrived at their destination on the eleventh of June following. They were then distributed in the following manner by the captain. The whole were to remain at the foreland until the fifteenth of July; then if their success did not answer their expectation, one ship was to bend her course more easterly, to a spot some fourscore leagues from thence, and much frequented by the whales at the fall of the year. A second was designed for Green-harbour (fifteen leagues to the southward); and the third, the one in which were the men whose adventures it is the object of the present article to describe, was appointed to remain at the foreland until the twentieth of August. The captain, however, having met with good success at Bell Sound, despatched a shallop to the ship remaining at the foreland with orders to meet him at the Bell Sound. On the eighth of August this ship, called the *Salutation of London* started in the direction commanded; but the wind being contrary, she was buffeted about for fifteen days, when having come to anchor about four leagues from Blackpoint, a place famous for great quantities of venison, the master sent on shore the following men for the purpose of killing venison for the ship's provision; viz. William Fakely, gunner; Edward Pellham, gunner's mate; John Wise and Robert Goodfellow, seamen; Thomas Agers, whale cutter; Henry Bett, cooper; John Dawes and Richard Kellet, landsmen. "We," says the narrator, "thus left the ship; and having taken a brace of dogs along with us, and furnished ourselves with a snap-house, two lances, and a tinder-box, we directed our course towards the shore." Their success on shore surpassed their expectations; but in the mean time a thick fog settling down upon the coast, and a southerly wind springing up, their ship was obliged to put out to sea, so that these unfortunate men lost sight of her. After traversing the country in almost every direction in hopes of again seeing her at some more distant point of the land, they gave up the pursuit, and embarking in the shallop which had brought them to Blackpoint, determined on making for Bell Sound, hoping there to be enabled to join their captain. Having neither compass nor chart to direct them, they soon lost their way on the trackless ocean, and in despair once more turned their vessel's head in the direction of Blackpoint. Perceiving, then, little chance of being rescued before the next fishing season, they began to prepare for wintering in Greenland.

Greenland is a country situate in 77 degrees 40 minutes north latitude, that is, within 12 degrees 20 minutes of the north pole itself. It is very mountainous; the mountains are throughout the year completely covered with snow. The land bears neither tree nor herb, and the sea is as barren as the land, being productive of nought but whales, sea-horses, and seals. Thus exposed in this desolate country, without even the commonest necessities of life, or the

remotest hope of being able to exist, the prospect before these poor men must have been heart-rending in the extreme. Gathering up their courage however, and putting their trust in that God who clotheth the naked and filleth the hungry with good things, they commenced operations for endeavouring to alleviate the severity of their condition, as much as was in their power.

They agreed to start for Green-harbour, there to kill and lay up a store of provision for the winter. There they constructed a tent with the sail of their shallop, stretched upon their oars. Their expedition was crowned with the greatest success; and lading their shallop with the carcasses and skins of the bears and deer which they had slain, they started for Bell Sound, where they intended to stay the winter. After various mishaps, the wind having proved contrary, they arrived at their destination on the third of September. Their first care on their arrival was "to cast about" for a place to live in during the approaching rigorous season. On the shore they found a tent or house, substantially built of timber, and covered in with Flemish tiles: it had been erected during some former voyage by the Flemish, in order to shelter the coopers while preparing casks for the train oil. The weather now set in so inclemently that their tent was insufficient to protect them from the cold. Near the coopers' tent had been built one for the use of the land-men while making oil, and our friends determined on taking it to pieces, and building a smaller house within their large one. This was soon accomplished; and with the wood which they spared from the building, and the remains of seven crazy shallops, which had been left ashore, they found themselves pretty well supplied with fuel for the fires which they were compelled to keep continually burning.

On September 12 they found two sea-horses lying asleep upon a "piece of yce, which had floated into the sound;" these they killed; and, cutting them to pieces, laid their carcasses in store for food, when their venison should be consumed. Notwithstanding this accession, they found their stock of provisions so small, "that," says Edward Pellham, in his account of their sojourn in this inhospitable country, "*we agreed among ourselves to come to allowance; that is, to stint ourselves to one reasonable meale a day, and to keepe Wednesdayes and Fridayes, fasting-dayes; excepting from the Frittars or Graves of the whale (a very loathsome meate), of which we allowed ourselves sufficient to suffice our present hunger; and this dyet we continued some three moneths or thereabouts.*" By this time their shoes and clothes had become worn almost to pieces, and having no better instruments for their repair, they made themselves "thread of roape-yarne, and of whale-bones, needles."

By the tenth of October the cold had become so violent that the sea was frozen over, at which their minds being unoccupied, they had leisure to "complaine of their present most miserable condition." The recollection of their friends at home, and the agonies they must endure when hearing of the mischance which had befallen them, quite unhinged them, and they had almost given themselves up to despair. But "thus finding themselves in a labyrinth, as it were, of a perpetuall miserie, they thought it not best to give too much way to their griefes, fearing they would most of all have wrought upon their weaknesse. Their prayers they now redoubled unto the Almighty, for strength and patience in these their miseries."

They were also soon compelled to stint themselves of another meal a week, as their provisions, from lying closely together, had gotten mouldy. Thus for three months they fed

for three days in the week upon the mouldy fritters, while the other four they feasted upon bear and venison.

As the season gradually advanced the light began to fail them, and all their meals were taken in darkness; soon "the glorious sun (unwilling to behold their miseries) altogether masked his lovely face from them, under the sable vail of cold blacke night." Thus, from the fourteenth of October to the third of February, they never saw the sun; but the moon continued shining at all times, day and night, as brightly as she dothe in this country.

Time thus rolled on in alternations of misery and cheerfulness, fear of famine and possession of plenteousness—until May 25 in the following year, when on leaving their house in the morning they perceived two Hull vessels in the sound, the master of which, knowing that some men had been left there the previous year, sent a shallop with some men to see what had become of them. They were amazed, on arriving at the tent, to find them alive, for they had expected nothing less than that they had either perished of hunger or had been devoured by the bears. As may be supposed their arrival was welcomed with the utmost joy, for the provisions of these poor men had begun to fail them, and they were in danger of starvation. They were taken on board the ship; and the *London Fleet* arriving on May 28, they remained with them until August 20, when they set sail for England. "And though," to conclude in the words of the rescued adventurer, "the foaming ocean was sometimes crossed with contrary winds, we at last came safely to anchor in the River of Thames, to our great joy and comfort, and the merchants' benefite. And thus by the blessing of God came we, all eight of us, well home, safe and sound; when the Worshipfull Companie, our masters, the *Muscovie* Merchants, have since dealt wonderfully well by us. For all which most mercifull preservation, and most wonderfully powerfull deliverance, all honour, praise, and glory be unto the great God, the sole author of it. He grant us to make the right use of it. Amen."

OF THE CYPRESS, AND THE TEAK TREE.

THE cypress was in great request among the ancients as an adjunct and a material of funereal solemnities. It was probably the dark and sombre colour of its leaves which obtained it this melancholy distinction; for, excepting that colour, there is nothing in the nature of the tree to point it out as a fit selection for such an object. On the contrary, it is distinguished by a fragrant and rather powerful odour, is a large and handsomely shaped tree, and affords wood of considerable closeness of grain, hardness, and durability.

It is chiefly found in the countries of moderately warm climate, and derives its name from that of the Isle of Cyprus, in the Mediterranean Sea. Cyprus wood is, we think, very undeservedly neglected by our cabinet-makers, for it is susceptible of a very beautiful polish, while its aromatic particles completely exempt it from the attacks of those numerous insects which make so much havoc among most other descriptions of wood. It was this latter quality, perhaps, which rendered it so much in request among the Egyptians for chests in which to lay those embalmed bodies which are called mummies.

The TEAK, which of late years has been so much in request for ship-building purposes, is a native of the eastern and semi-barbarous kingdom of Burmah, but has been, we believe, very extensively as well as successfully transplanted into British India.

Like the cypress, the teak tree is an evergreen or very

large size; and like it, also, it has a strong aromatic odour, which renders it proof against the efforts of mischievous insects. All our vessels which are built in India are constructed of this wood; and it is said that, as far as *durability* is concerned, ships thus built are superior to those in which oak is used. But by durability must be here understood the power to resist insects and damp; for, as regards external violence, to which ships are necessarily so liable, teak-built shipping will bear not a moment's comparison with that which is made of the hardy oak.

THE WOODPECKER.—The *tongue* of the woodpecker is one of those singularities which nature presents us with when a singular purpose is to be answered. It is a particular instrument for a particular use; and what, except design, ever produces such? The woodpecker lives chiefly upon insects, lodged in the bodies of decayed or decaying trees. For the purpose of boring into the wood, it is furnished with a bill, straight, hard, angular, and sharp. When, by means of this piercer, it has reached the cells of the insects, then comes the office of the tongue; which tongue is, first, of such a length that the bird can dart it out three or four inches from the bill—in this respect differing greatly from every other species of bird; in the second place, it is tipped with a stiff, sharp, bony thorn; and in the third place, this tip is denated on both sides, like the beard of an arrow, or the barb of a hook. The description of the part declares its uses. The bird having exposed the retreats of the insects by the assistance of its bill, with a motion inconceivably quick launches out at them this long tongue, transfixes them upon the barbed needle at the end of it, and thus draws its prey within its mouth. If this be not mechanism, what is? Should it be said that, by continual endeavours to shoot out the tongue to the stretch, the woodpecker's species may, by degrees, have lengthened the organ itself beyond that of other birds, what account can be given of its form, of its tip; how, in particular, did it get its barb, its denation? These barbs, in my opinion, wherever they occur, are decisive proofs of mechanical contrivance.—*Paley, Nat. Theol.*

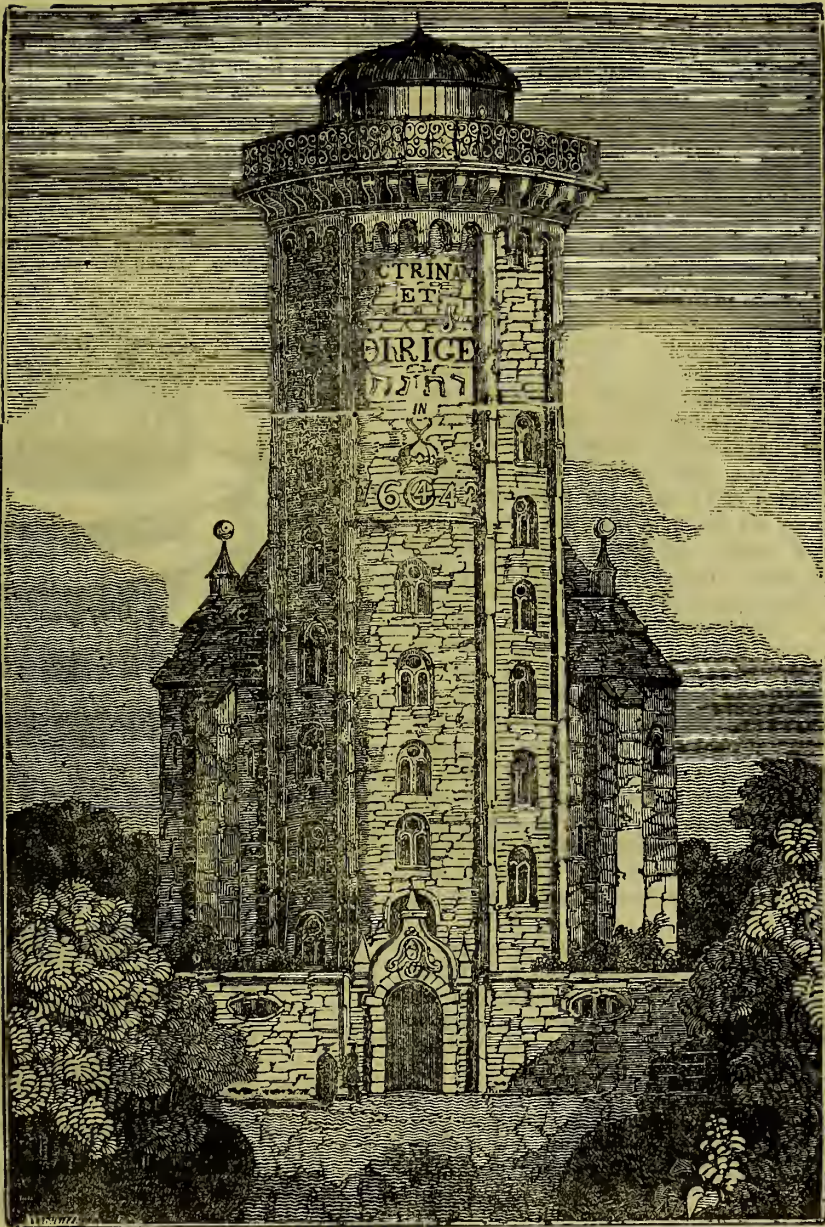
THE INVENTION OF THE MARINER'S COMPASS.—Much discussion has been bestowed to render certain the date of the invention of this most useful instrument. Dr. Gilbert, who wrote an elaborate Latin discourse on the nature and properties of the loadstone, is of opinion that its use originated with the Chinese. Osorius refers it to Gama and his countrymen the Portuguese, who, according to him, took it from some barbarian pirates. The honour of the discovery is attributed by Goropius Becanus to his countrymen, the Germans. Blondus and Pancirollus, both Italians, assert that it was discovered at Meephis, in Naples, about the year 1300. Dubartus affirms that the name of the inventor of the compass was Flavius. We are inclined to believe that Flavius, a Melvitan, was the first who invented the means of guiding a ship by employing the magnetic needle; but as the thirty-two points of the compass borrow their names in all languages from the Dutch, it is probable that some Dutchman subsequently added to the north-indicating compass the thirty-two points of the wind.

THE GUNPOWDER OF OLDEN TIME.—The following quaint description of the ingredients employed in making gunpowder, is found in Farmer's "History of Waltham Abbey."

"1. Brinstone, whose office is to catch fire and flame of a sudden, and convey it to the other two ingredients.

"2. Charcoal pulverized, which continueth the fire and quencheeth the flame, which otherwise would consume the strength thereof.

"3 Salt-petre, which causeth a windy exhalation, and driveth forth the bullet. This gunpowder is the emblem of political revenge, for it biteth first and barketh afterwards, the bullet being always at the mark before the report is heard; so that it maketh a noise not by way of warning but of triumph."—*C. M.*



THE OBSERVATORY OF COPENHAGEN.

To the lovers of astronomy, Copenhagen is classic ground; for notwithstanding some errors inseparable from the state of science and scientific instruments in the time at which he lived, Tycho Brahe was an astronomer of great and original genius. At the very early age of fourteen he began to manifest his strong desire to investigate the laws and motions of those starry spheres at which youth at that age, for the most part, gaze without a single feeling beyond that which arises from their twinkling sheen.

After many years of patient toil, Tycho Brahe commenced a series of observations at Hoene, an island near Copenhagen, and continued there till 1597, at which latter period he was driven from the place of his honourable labour; and in less than four years more, he had departed from the struggles and the sorrows of that earth on which he had lived,

however, long enough to make a name eternal and imperishable as the glorious science he so zealously cultivated.

Though guilty of some errors—chiefly attributable, however, to the uncontrollable causes to which we have already referred—Tycho Brahe was among the greatest benefactors to astronomical knowledge. He produced, while at Hoene, the first table of refractions ever given; discovered the variation and the annual equation of the moon; the variation of the motion of her nodes, and of the inclination of her orbit, and that of the obliquity of the ecliptic. To these truly valuable labours, he added that of making a catalogue of fixed stars, more accurate and elaborate than had ever before been made, and of improving both the methods of observation, and the instruments used in making them.

Among the most obvious and vital of the errors of Tycho

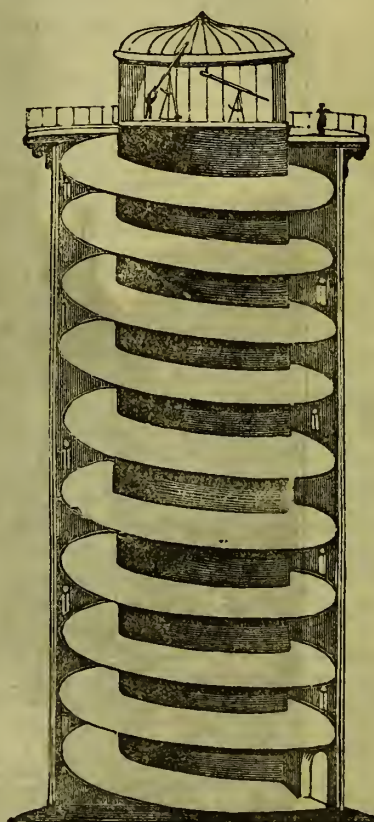
Brahe, was his rejection of the theory of the earth's motion round the sun. The Tychonic theory was, that the sun moved round the earth, communicating and causing the similar motion of all the other planets. In the present state of science, his opposition to the Copernican theory of the earth's motion round the sun would be ludicrously unscientific. But though it is *now*, and, under existing circumstances, perfectly easy for any one who has the merest smattering of science to side with Copernicus, and to censure Tycho Brahe, a very little reflection upon the subject ought to induce us to make very great allowance for the latter. Well-grounded as the theory of Copernicus is as to the main point—the motion of the earth round the sun—it is to be borne in mind that the whole theory of Copernicus was divided into two very different portions; first, the revived opinions of the Pythagorean school, as to the motion of the earth; and secondly, his own bold, searching, and original opinions. And consequently, though right in the main, Copernicus was greatly retarded by the very ally who gave him, so to speak, a fulcrum for his intellectual lever; and to the many merely mechanical objections made to his theory, Copernicus himself, had he lived to read them, would most probably have been at a loss for an answer; indeed, it is positively certain that he would have been without a conclusive and satisfactory reply, unless he had made discoveries which were reserved for Galileo, Newton, and Bradley. Galileo's unobjectionable system of Dynamics; Newton's proofs that the celestial phenomena are exemplified in the mechanical deductions from the law of attraction; and Bradley's discovery of the aberration of light. (a discovery, be it observed, not made until the year 1727.)—these were requisite to the full and facile defence of the Copernican system. And consequently, however erroneous Tycho Brahe's system, we must make allowance (in judging of his reasons for rejecting the Copernico-Pythagorean system) for the *seeming* difficulties and for the *seemingly* insuperable objections attendant upon the truer theory.

Astronomy is one of those subjects upon which our pen is very apt to run away with our thoughts; and it is rather owing to a lucky accident than to any other cause, that we have just now called to mind that we were writing of astronomical history, which, however useful at a proper time and place, would scarcely illustrate our engraving of the "Observatory at Copenhagen." Of the noble building in question we find the following account in Boisselin:—

"We mounted the greatest part of the way by a winding plane, without steps. The width of the plane is so great,

and the ascent so gradual, that a carriage-and-four might easily be driven from the ground to the circular gallery around the top of the tower; indeed Christian IV. is said to have ascended the tower in his carriage, attended by his suit on horseback. The view of Copenhagen from the surrounding gallery is delightful; the observatory rises from the centre of the circular gallery, and is well furnished with astronomical instruments." The inscription is thus explained:—

"Doctrinum et justitiam dirige Jehova in corderm coronati Christiani quarti, 1642."—Direct, O God, the heart of the royal Christian IV. in science and justice, 1642.



THE INTERIOR, SHOWING THE MODE OF ASCENT

QUEEN ANNE BOLEYN.

WHEN we reflect on the resolute stand made by the English nation against the arbitrary acts of Charles I. which, though unconstitutional, were not marked with cruelty and blood, we are astonished at the apathy displayed by the same people, half a century before, under the tyranny of the fickle and heartless Henry VIII. In his reign, not only the fires of Smithfield blazed to destroy those who could not change their religion as often as his fancy dictated, but the domestic altar was stained with blood, merely to gratify his capricious desires.

It is probable that the sufferings of his first wife, Catharine, who was too powerfully allied to render it safe for him to put her to death, were more acute, and certainly much more prolonged, than those of his unhappy consorts who died on the scaffold. To see herself degraded from her

station as queen of England, and her daughter declared illegitimate, because her tyrant chose to consider their marriage as unlawful, must, to so high-spirited a woman, have been worse than death. Yet private suffering, however acute, does not excite our sympathy so strongly as the public execution of a lovely and innocent person. While, therefore, we consider Henry as an unfeeling tyrant in his conduct towards Catharine, we regard him with execration and abhorrence for his treatment of her unhappy successor.

Anne Boleyn, the second wife of Henry VIII. was born at Blickling Hall, at Norfolk, in 1507. Her father was Sir Thomas Boleyn, or Bulloigne, afterwards earl of Wiltshire and Ormond; and her mother, Elizabeth, daughter of Thomas Howard, duke of Norfolk. In early youth she went to France as an attendant on the wife of Louis XII. who was

an English princess. She was afterwards maid of honour to the queen of Francis I. and to the duchess of Alençon.

At the age of twenty she was placed in the same station in the court of Catharine, queen of Henry VIII., and soon, unintentionally, attracted the notice of the king. It is said that he used every means in his power to induce her to become his mistress, but finding them ineffectual, he determined to make her his wife. Previous to this, it is supposed that no scruples respecting the lawfulness of his former marriage entered his mind; they now served, however, as a pretext for a divorce, and his second nuptials took place January 25, 1532.

The Almighty, who overrules evil for good, paved the way for the Reformation that soon followed, by inducing Henry to separate England from the spiritual dominion of the Roman pontiff; and, though he was an enemy himself to the doctrines of the Reformers, he unconsciously prepared the way for their reception.

Many circumstances concurred to effect the ruin of this unhappy queen. The love of Henry was a mere brutal passion, which possession extinguished. The birth of a daughter (afterwards queen Elizabeth), when he hoped for a son, increased his alienation, and the sight of another beautiful object, with whom he fancied himself enamoured, completed his disgust; and when to this is added, that Anne was a favourer of the Reformation, which Henry abhorred, it is not to be wondered at that his love was changed to deadly hatred.

It has been justly asserted, that when power and malice are united against any one, innocence is no protection. Even the friendly intercourse of brother and sister served the purpose of this tyrant, who founded on it an accusation of the most revolting nature, and such as there was no evidence that can be considered as a shadow of proof. Yet so abject were the nobles of those days, that not only did they servilely gratify the king by finding her guilty, but her grandfather, the duke of Norfolk, presided as Lord High Steward at the trial, and her father was one of the peers that sat in judgment. That men who boasted of their noble blood, of their high spirit, and of their illustrious descent from the bold barons who so firmly withstood the encroachments of their monarchs, could thus basely sacrifice their honour and the life of an innocent woman to a stern tyrant's will, would be scarcely credible, were it not on historical record of undoubted veracity. The following extract from a MS. in the British Museum will be read probably with interest:—

"Thomas, duke of Norfolk, Lord High Steward of England, at the tryall of Queene Anne Bulloigne, who, on the 15th day of May, in the 28th yeare of the reigne of Kinge Henry the Eight, was arraigned in the Tower of London, on a scaffold for that purpose, made in the King's Hall, the duke of Norfolk sitting under the cloath of state, the Lord Chancellor on his right hand, and the duke of Suffolke on his lefte, the earl of Surry, sonne of the duke of Norfolk, sittinge directly before his father, a degree lower, as earl Marshall of England, to whome were adjoynt twenty-six other peeres, and among them the queene's father, by whom she was to be tried. The king's commission being read, the accusers gave in their evidence, and witnesses were produced. The queene sittinge in her chaire made for her, (whether in regard of any infirmity, or out of honour permitted to the wife of the sovereigne,) havinge an excellent quick witt, and being a ready speaker, did so answere to all objections, that had the peeres given in their verdict accordinge to the expectation, she had bene acquitted. But they, (among whome the duke of Suffolke, the king's brother-in-lawe, was chiefe, and wholly applying himselfe

to the kinge's humour,) pronounced her guilty. Whereupon the duke of Norfolk, bound to proceed accordinge to the verdict of the peeres, condemned her to death, either by being burned in the Tower Greene, or beheaded, as his Majestie in his pleasure should thinke fitt.

"The sentence beinge denounced, the court arose, and shee was conveyed back againe to her chamber, the Lady Baten, her aunt, and the Lady Kinsman, wife to the constable of the Tower, only attending her.

"And on the 19th of May, the Queene was brought to the place of execution in the greene within the Tower; some of the nobility and companie of the citie being admitted rather to be witnesses than spectators of her death, to whom the queene, (having ascended the scaffold,) spake in this manner:—

" 'Friends, and good christian people, I am here in your presence to suffer death, whereto I acknowledge myself adjudged by the lawe, how justly I will not say; I intend not an accusation of any one. I beseech the Almighty to preserve his majestie long to reigne over you, a more gentle or mild prince never swayed sceptre; his bounty and clemency towards me I am sure hath bene speciall: if any one intend an inquisitive survey of my actions, I entreat him to judge favorably of mee, and not rashly to admit any censorious conceit. And soe I bid the world farewell, beseeching you commend me in your prayers to God.'

"This speech she uttered with a smiling countenance, then kneeling downe with a fervent spirit, said, 'To Jesus Christ I commende my soul; Lord Jesu, receive my soule;' and repeating these words very often, suddenly the stroke of the sword sealed the debt that shee owed unto death.

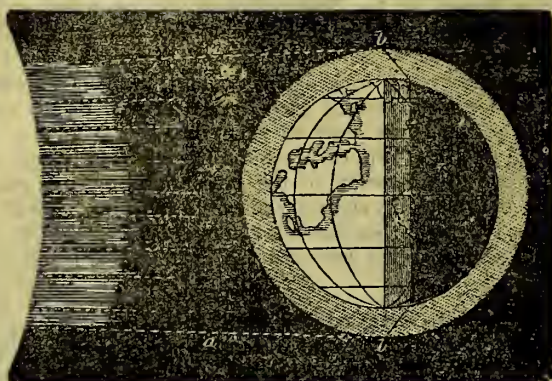
"Now the court of England was like a stage whereon are represented the vicissitudes of ever-various fortune, for within one and the same month yt saw Queene Anne flourishinge, accused, condemned, executed, and another assumed into her place both of bedd and honour. The first of May, (yt seemeth,) she was informed against, the second imprisoned, the fifteenth condemned, the seventeenth deprived of her brother and friends who suffered in her cause, and the nyneteenth executed. On the twentieth, the King married Jane Seimour, who on the nyne-and-twentieth was publicly showed Queene."

A statue of Queen Anne Boleyn still adorns the grand staircase of Blicking Hall.

EPICURUS offered a system which held out different objects of desire from those which the preceding systems had prescribed, and gave different reasons for their becoming objects of esteem. Pain and pleasure (said that philosopher) refer chiefly to the body, and are natural objects of desire and aversion. We should uniformly pursue pleasure, unless the pursuit of it may expose us to pain or to suffering. The pleasures of the mind ultimately rest on those of the body: the body feels the present pleasure or pain, the mind anticipates or remembers them. Present pleasures or pains are insignificant compared with those which are either recollected or expected. Prudence then is valuable, not on its own account, but from its tendency to ensure the greatest degree of pleasure, and to avert the greatest degree of pain. Temperance is the prudent use of pleasure; and justice is the selection of the means of pleasure without injury to the pleasures of other men. In all this progress man uniformly acts from self-love: he is selfish when he appears benevolent; compassion is exercised to avoid a pain rather than to relieve the unhappy. Virtue, according to this system, consists in that prudent exercise of the selfish affections which enables us to possess the most perfect pleasure.

No. III.—SELF-INSTRUCTOR IN ASTRONOMY.

PHENOMENA OF DAY AND NIGHT.



THE most familiar of all the astronomical phenomena is the gradual and regular transitions of day to night. It must be obvious to all that day is produced by the presence of the sun's light, and night, by the absence of it. By Ptolomy, Tycho Brahe, and other celebrated ancients, it was believed that the sun, moon, planets, and whole host of stars, performed an eternal revolution round the earth, for the mere purpose of lighting us. Subsequently, however, it has been proved that the same effect is produced by the earth itself turning round, and thus

exposing in succession every part of her surface to the genial beams of the sun, the placid light of the moon, and the twinkling lustre of the stars. Those ancient astronomers we have just mentioned relied, for the most part, upon the evidence of their senses; while in modern times, astronomers have been guided by reason. The revolution of the earth, according to the modern theory, may be exemplified in the following familiar manner. While a ship is under sail, a person looking out of the cabin window will perceive the churches, trees, and houses, on the coast, moving rapidly in a contrary direction to that which his reason tells him he is sailing, though he is not himself sensibly conscious *he* is moving. Suppose, again, the ship to be the earth, and the churches, trees, and houses, the sun, moon, and stars, and you may then form some idea of the earth's revolving upon her axis, and leaving the heavenly bodies in the distance. As the earth is of a spheroidal shape, the rays of solar light cannot illuminate but one half of its surface at one time. The dews of the morning are constantly descending upon those portions of the earth towards the east, which are merging into the sun's beams, so that they are gently moistened, and by that means sufficiently prepared to pass under and receive his mid-day heat at twelve o'clock. And by the motion of the earth round its axis, this portion of its surface is thus regularly but gently precipitating itself, from the rays of the noon-day sun, into the darkness of night.

No. II.—SELF-INSTRUCTOR IN POLITENESS.

ON POLITENESS GENERALLY

To be polite is as easy as it is desirable. To *wish* to act so as may be most agreeable to the feelings of others will suffice, if to that wish we add good judgment, and close observation of the forms of society. This latter condition is much more important than it at first sight may appear; for what is politeness in one rank of society may be truly disagreeable, and therefore impolite, in another.

Some people seem to have the command of politeness almost intuitively; the truth being, that they are thoroughly good-tempered, quick of observation, and sincerely desirous to spare the feelings of all with whom they have any dealings. On one point of politeness we would especially insist—that of avoiding both the reality and the appearance of engrossing the attention of the company. Are *you* very anxious to be fairly and fully heard, and properly appreciated and honoured? Ah! then pray remember that others are

actuated by precisely the same desire; and that if you thwart others in their endeavours to be fairly heard, it is hardly fair to expect that they shall show you the forbearance you so pointedly and insolently refuse to them.

Particular rules of politeness are useless; for, as we have already said, politeness in one sort of society is very different from politeness in another; and, moreover, the occasions for politeness are ever varying—and true politeness should be *ever-ready*, ever prepared with the proper word, look, and gesture, for the occasion, however novel the occasion may be. But though particular rules must of necessity be useless, a constant thought upon *general* rules will be a chief agent in enabling a young man at once to put his associates at ease with themselves, and enlist their sympathies and their regards on his behalf.

THE WEAR AND TEAR OF THE BODY AND THE MIND.

WE are directed to this subject from the following observation of Dr. Johnson:—

“There is a condition, or state of body and mind, intermediate between that of sickness and health, but much nearer the former than the latter, to which I am unable to give a satisfactory name. It is daily and hourly felt by tens of thousands in this metropolis, and throughout the empire, but I do not know that it has ever been described. It is not curable by physic, though I apprehend it makes much work for the doctors ultimately, if not for the undertakers. It is

that WEAR and TEAR of the living machine, mental and corporeal, which results from *over strenuous labour*, or exertion of the *intellectual faculties*, rather than of the corporeal powers, conducted in *anxiety of mind and bad air*. It bears some analogy to the state of a ship, which, though still seaworthy, exhibits the effects of a tempestuous voyage, and indicates the propriety of re-caulking the seams, and overhauling the rigging. It might be compared to the condition of the wheels of a carriage, when the tires begin to moderate their close embrace of the wood work, and require

turning. Lastly, it bears no remote similitude to the strings of a harp, when they get relaxed by a long series of vibrations, and demand bracing up.

"I do not speak of the mere labour of the body. The fatigue induced by the hardest day's toil may be dissipated by 'tired nature's sweet restorer, balmy sleep;' but not so the fatigue of the mind. Thought or care cannot be discontinued or cast off when we please, like exercise. The head may be laid on the pillow, but a chaos of ideas will infest the over-worked brain, and either prevent our slumbers, or render them a series of feverish, tumultuous, or distressing dreams, from which we rise more languid than when we lie down."

Few students will be found who do not *know* all this to be true. But what is the remedy? We have tried every species of *remedy* in its turn, under the direction, and by the prescription of physicians. We have travelled by land and by sea; we have visited galleries of pictures; we have attended the public assemblies of fashion, and of science, and the public amusements; we have listened to the most celebrated orators, and heard the most exquisite music, and seen the most splendid monuments of human power and genius; we have paced the aisles of the magnificent cathedral of the "Eternal City;" we have gazed on its ancient monuments from the top of the Capitol, and have surveyed its modern beauties from the Monte di Trinita; we have looked down from the top of Vesuvius on the enchanting city and bay of Naples, and we have gazed from the summits of the Alps upon—

"The land of the mountain, and land of the flood,"

and looked abroad upon the desert of snow and ice which surrounded us; we have visited universities, and schools, and hospitals, and palaces, and manufactories; we have experienced a degree of pleasure, and sometimes of *exquisite delight*, which perhaps no scenes of earth will ever again produce. Such was the excitement, that we could often, for the moment, outdo friends of four-fold greater vigour. But *reaction* soon followed, and we were more exhausted than before. It was still *WEAR* and *TEAR*; and the more interesting, and more delightful were the objects before us, the greater was the exhaustion produced in a system convalescing from the previous effects of this disease. To the healthy man, such kinds of occupation may be a source of still higher health—an important means of carrying off his superfluous vigour. They may be *indispensable* to some whose previous cares have produced an absorption of their own reflections, an intensity of thought, amounting almost to monomania. But amusements of this kind must be used with *great caution* by one who needs to gain strength, and has none to spare. They demand a certain degree of vigour to be endured with safety; and often, when they seem to inspire the languid invalid with new life—while they enable the brain to excite the muscles even to efforts beyond all ordinary ability, and thus seem to an unpractised eye to be almost a panacea for his ills,—they are exhausting his vital powers in a fearful manner. We have seen melancholy instances, in which a course of such occupations and amusements, pursued, too, without excess, if we compare them with the ability of a healthy man, have proved like the last desperate stroke of the gambler, when he stakes his all upon a single cast.

For ourselves, we pretend to no medical skill but that which we have acquired in twenty years' observation and experience of the effects of the state so well described by Johnson, and of the prescriptions of physicians whom we have been led to consult from Edinburgh to Rome, and in many parts of our own country. But we have been enabled to assist some of

our fellow-sufferers, and we venture to present the results of our observations to those of our readers who may be among the number, as a means of warning, if not of guiding them.

We have found no remedy for an exhausted mind but *REST*. We are aware that there is a rule, and a most salutary one, which tells us that "change of occupation is rest," because it employs the mind in a new manner, and brings new faculties or organs into action. But when *every faculty* has been strained to the highest point, and the *whole mind* has lost its elasticity and its vigour, when it is as fatiguing for the imagination to soar and wander, as for the reason to plunge into the depths of knowledge, how is this rule to be applied? And even if this be not the case, the sympathy of different faculties, or, if we adopt phrenological views, of different organs, renders the rest of *all* frequently necessary, just as the whole body must often be kept in a state of absolute repose, in order to restore a single injured limb.

Sleep, and to the greatest amount which the state of mind and the health of the body would allow, we have found the most precious, as it is doubtless the most perfect rest. And to those who have not lost the power of sleep, we know not but this would be enough, if indulged in properly, and without regard to external claims or common prejudices, or that friendly advice to the contrary so often ignorantly given. We knew a young French physician who was worn down with this sad disease, and its legitimate offspring, dyspepsia, who assured us that he was entirely cured by retiring to a small French village, giving up all occupation, spending from twelve to eighteen hours daily in sleep, and tasking his digestive powers with no more food than was necessary to this dormouse life. The greatest and most permanent relief we have ever found, was in pursuing a similar course.

But many seldom receive a visit from "tired nature's sweet restorer" even for an entire night; and court her in vain with all the arts and all the drugs which have been devised, so long as they remain in the circle of their friends, and in the sphere of their business, or of the public or private objects which interest them. In such cases we know no remedy but *flight*, not so much for the sake of locomotion, as to get beyond the reach of all associations which excite the mind to action. The sight of the spires and buildings of a distant town, the view of a library, or objects connected with literary pursuits, the habit of hearing and reading concerning the objects which have interested us, are in many cases enough to maintain the state of excitement. The mind, in its feeble state, is almost as much wasted by the reveries into which it is plunged, and the useless straining of thought, and the anxiety, and regret, and the painful sense of impotence to which it is led by such objects, as it was in health, by the full exertion of all its powers, and is almost as sure to sink under them. Even the family circle frequently recalls too much of thought, or excites too much of feeling for this enfeebled state; and the sufferer must abandon even the comforts and pleasures of home before he can obtain *perfect rest*.

Let it be remembered that unquiet slumbers are often as wearisome as watchfulness; and let those, therefore, who need rest for a time, reserve nothing which may impair it,—hesitate at no sacrifice which will secure it. Better a temporary abstinence, than a final loss; far better to give up the most flattering prospects of usefulness to others, or benefit to ourselves, than to secure them at the expense of our power for future effort, and thus prepare to live mere incumbrances upon society.

There is, however, another condition of rest besides the withdrawal from objects that disturb it. The experience of an aged observer of literary men, led to the remark, "there is no effectual repose from mental labour, but in bodily labour." If fatigue is already constant, as it too often is in a debilitated student, there is obviously no need of increasing it; and wearisome efforts of body must be deferred until the strength is increased by some other means. But as soon, and in proportion as muscular vigour returns, it should be called into exercise, as far as it can be done without exhaustion, not agreeably to any given measure of time, but with careful adaptation to the existing powers, and without permitting one's self to go beyond the point of fatigue, in order to gratify what John Wesley denounced as a sin, under the name of "the lust of finishing," or even to meet the demands of society or friends. If our efforts were indispensable, Providence would have given us power to complete them; and the reply of the minister to the king of Spain, who was tormented with anxiety about his kingdom, during an illness, ought to be often repeated by every invalid, tortured with this sense of his own importance:—"The world went on very well before your majesty was born, and it will go on very well after your majesty is dead."

We will only add one remark more, derived also from our own experience. Where body and mind are so far exhausted that rest cannot be obtained and labour pursued at home, we believe there is no better means of procuring the one, and obtaining a substitute for the other, than a voyage to sea, provided there be no painful dread, or peculiar bodily suffering. On the ocean the traveller is almost removed from sources of excitement and feelings of responsibility, unless he should fall in company with those who call up his former objects of thought; his life itself is monotonous; he has little temptation to keep him even wakeful; the objects around him are generally soothing in their effect upon the mind. The incessant rocking from morning to night, and from night to morning, wearisome as it sometimes is, is an admirable substitute for active exercise, when the strength does not admit that; and will soon prepare one for it. At the same time it combines, with all other circumstances, to keep the mind and body in a slumbering state, and to produce sweet and refreshing slumbers, after they have long been unknown.

To sum up our views: we are convinced that the shops of the druggist furnish no medicine for this disease and its offspring. We believe the only remedies to be *rest of mind and labour of body*; and he who neglects them, or who resumes his labours, (as we have always unhappily done,) before they had produced their entire effect, and draws upon the full extent of his powers before they have had time to recover vigour as well as health, is in danger of violating the command—"Thou shalt not kill;" and of robbing his friends, and his fellow-men, as well as his God, of services which he was bound to render, and which imprudence only has prevented.

AFFECTION AND SELF-DENIAL.

THE education of youth, whether as regards the physical or the moral, it is obvious depends upon the parents. Helpless as are the young of the brute creation, even they are not so entirely, so utterly, so touchingly helpless and dependent as young children. To the honour of our common

nature there is no one point upon which, so far as the mere volition is concerned, so few are found wanting as that of the duty of mothers to their children. During the period of lactation, what incessant care, what exquisite foreknowledge and quickness of perception, what heroic—because sustained and unwearying—self-sacrifice, what beautiful and disinterested love, does the mother display! But—and it cannot be too often or too emphatically said—the *education* of the child commences even during lactation; and even at that early period the *wisdom* as well as the love of the mother should be strenuously and constantly exerted.

So corrupted as is our nature, the WILL must be subdued ere the latent though strong virtue of our nature can be thoroughly developed; and however little the fact may be thought of and acted upon by mothers in general, that fact still remains certain and irrefragable, that much of the happiness or misery, vice or virtue, wisdom or folly of the child, depends upon the mother, from the very first, subduing the mere unreasoning self-will of the child.

To exhort English mothers to *tenderness* would be to be guilty at once of an impertinence and supererogation. In this respect they are of an unsurpassed excellence. But tenderness is to be tempered with judgment if we would not injure those whom we, unwisely however, ardently desire to serve. The kindness which arises merely from impulse we should watch with a jealous hypercriticism. We should narrowly scrutinize our actions, and carefully guard against all indulgences which spring rather from a regard to our own feelings than from a *real* and a *foreseeing* regard to the *true* and *permanent* welfare of our offspring.

Here, as regards *physical* education, English mothers, we repeat, are of unsurpassed sincerity and goodness. Oh! the sleepless nights, the unwinking though wearied eyelids, the affection so tender to its object, and yet so sternly untiring in its zeal; the neglect of self, the absolutely bitter contempt of ease, the absolute loathing of what the world calls pleasure,—these make every nursing mother a real though an unpraised and unappreciated heroine. The proudest and the greatest, the sternest and the ablest among us has, day after day and night after night, week after week and month after month, experienced all this tender love and self-denying sternness of zeal; and they have been lavished upon us when, but for them, we had perished from the face of the earth even before we were conscious of our existence as intellectual and accountable beings. How lovely, how pure the affection of our mothers! How vast our obligations! And how can we, individually, perform our part better in testifying our sense of the obligations of every man to the maternal tenderness, than by pointing that tenderness to the *moral* infant, as nature has already pointed it to the physical one?

CHOICE OF COMPANY.

WE need scarcely say, that we are by no means inclined to underrate the importance or the efficiency of reading, as a mean of moral as well as of intellectual improvement. But greatly as we rely upon the general diffusion of a taste for reading, for the purpose of working a general improvement in morality, and consequently in virtue, we are fearful that too much stress may be laid upon that power. The mere cultivation of the intellect, though it does *much* towards moral improvement, cannot do all. There are very many

modifying powers, all and each of which has as great an influence as even reading itself in forming a good or a depraved character. Chief among these modifying powers is *our company*.

"Show me a man's company, and I will tell you what he is"—is an adage which involves a very indisputable and a very important truth. Men of the highest intellectual powers have been known to disgrace themselves by the practice of the very worst vices that deform and disgrace our nature, and render the individuals who practise them a curse equally to themselves and to society. How are we to account for this? Are good books *not* good; are fine powers of reasoning *not* serviceable in leading their possessor to correct conclusions? To assert this would be to be guilty of the most manifest absurdity and self-contradiction. We must look, then, farther than intellectual exercises to discover the real cause of moral excellence or of moral obliquity; and of all the causes most potent in producing either the one or the other, not one has the vast power of *our choice of company*.

It unfortunately happens that vice is, under but too many of its aspects, alluring to those who are too short-sighted to view it in all its forms at once. And it happens, too, that when the more alluring aspect of vice has made a convert, *habit* prevents even the first step towards reformation. Hence the tremendous danger of making acquaintance with even one bad or vicious person. For such persons are *at first sight* exceedingly plausible, and their vices are always presented with the best aspect in front. It is not until the fatal gulph is past,—until the first freshness and purity of innocence have departed for ever, that the young man who is unfortunate enough to make a bad acquaintance discovers that vice has its hideous as well as its alluring aspects; and *then*, *habit* has as great a power to retain as novelty formerly had to make the convert.

It is, we fear, much easier to show the necessity of avoiding bad company than to furnish any thing like detailed or infallible rules for distinguishing between the good and the evil. But there are two or three very important points upon which we can guard our young readers; and but a very brief space is requisite for that purpose.

If physiognomy were as correct a science as many of its enthusiastic believers and lovers are in the habit of representing it to be, *that* would form indeed a valuable mean by which to judge of the characters of those who present themselves as candidates for our acquaintance. But everyday experience and all history assure us, that this mode of judging is to the last degree fallacious. Alcibiades, when young, was at once the handsomest and the most vicious man in Athens; while Socrates had the sensual look of a satyr: so deceitful is the human countenance! But though the countenance will not always betray the bad or the vicious man, the tongue and the habits invariably and infallibly will do so. And therefore, oh youth! flee from the presence of that man who speaks lightly of religious or of moral truth, as from the presence of the incarnate lord and author of all evil; and, above all, flee from the presence of the man—no matter what his apparent excellence in other respects—who will sanction wicked acts by his precept, or lewd discourse by his example. Such a man *may* be accomplished—he may be learned; but he is, notwithstanding, more dangerous in your path than the crested snake. Avoid such company as you would avoid the *instant* commission of wickedness; for, *being once contaminated* by having connected yourself with bad company, it is quite certain that you will yourself, sooner or later, be unfit for any other company than that.

RECRIMINATION

A THOROUGHLY passionate, and at the same time a thoroughly cunning man, could not, were he to ponder for half a lifetime upon the various weapons of unjust verbal warfare, select one so thoroughly to his purpose as recrimination. Turn this weapon whichever way he may, it suits his purpose, *it is all edge*; at least, your passionate and cunning man invariably thinks so, until he happens to find his favourite weapon shiver in his hand at his deepest need. And this it would invariably do were recrimination always properly met.

If we have been unfortunate enough to do wrong, there are ten thousand reasons why we should regret that fact, and strive with our whole heart and our whole soul to guard against its recurrence. But there is no one reason why our having done a wrong should be any justification of the conduct of the man who is wronging us, or those for whose interest or safety we are concerned; and a proper remembrance of this fact will usually prevent recrimination from being tried with us.

If, indeed, recrimination were *only* so far the instrument of unjust men as we have ourselves made it so; were recrimination only used when vice or folly on our part had exposed us to it; both logic and morality would tell us that our only defence against recrimination should be our avoidance of vice and folly in all their branches. This, however, is so far from being the case, that those who are most in the habit of recriminating are quite commonly among the very last who have a moral right to set themselves up as judges of others; and it quite as commonly happens, too, that they take for the subject-matter of their recrimination mere foibles or errors, having little or nothing in them offensive to morals, which have no kind of connexion with the question in dispute; or, for want of even those small matters for invective, invent a few foibles *extempore*; and *here* it is that the recriminator is powerless. We should merely smile at his rage, and pity the delusion, the absolute *monomania* under which he labours, in supposing that we are so utterly blind to his artifice as to suffer it to put us out of temper; and thus *lead us* (always the recriminator's main object) *from our own first accusation of him*. If by a dexterous *tu quoque* he can induce us to resort to an earnest and passionate self-defence, the chances are greatly in favour of his causing us to forget the real and just charge which we have brought against him.

It would be well if all were just enough and wise enough to abstain from disputation of all kinds, political, moral, or personal. But as we are always, in the present state of society, liable to be called upon to defend some right, or to resist some injustice of word or deed, it will be well to deprive injustice of so powerful a weapon as recrimination. Passionate and unjust men are only too ready to resort to this injustice, even when no single point of our moral character can give them any justification. In such case a valuable moral may be drawn from an anecdote told to us by a literary friend; and with which we shall conclude this very brief essay. He was standing at the door of a bookseller's shop, waiting for a conveyance, when a portly and fiery-tempered gentleman alighted from a hired cabriolet. The driver asked somewhat more as his fare than our florid friend was inclined to disburse; and the latter had so much less regard for character than for his purse, that he incontinently addressed the driver in that sort of style which none but very passionate, very unjust, very tyrannical, or very ignorant men ever indulge in. The driver listened to all that his choleric fare chose to say, with an equanimity worthy of the sage husband of Xantippe; and when mere exhaustion brought the *gentle-*

at silence, quite coolly said, "Your honour's quite right ;
bandy-legged and all that, but *come to the point !* My
fare's half a crown !" The gentleman paid his fare : and
"*come to the point !*" will be found very efficient with other
recriminators.

ON CULTIVATING CALMNESS AND SERENITY IN CHILDREN.

As Madame Necker has so ably treated this subject in her
work on "Progressive Education," we are sure we cannot
better satisfy our readers than by presenting them her views
of a topic scarcely thought of by most parents :—

"With these, and other similar cares, we shall be able to
maintain in children an habitual calm of the soul, which is
of immense benefit, and yet easily lost,—the most essential
perhaps to their moral constitution, yet frail and fluctuating.
The nerves, once violently shaken, are a long time in being
restored ; the health and the character equally change.
There is in every one a class of faculties, and the most
elevated, perhaps, which grow and ripen only in the tutelary
shade of repose : this has relation to our finest intellectual
endowments, as well as to our virtues. There is nothing
admirable, nothing great in moral nature, of which serenity
does not favour the development.

"However it may be, if we do not disturb it, this happy
disposition will always be found in infancy. It shines with
a pure lustre in the eyes of the child ; it reposes upon his ex-
panding forehead. One in whom reigns this sweet serenity,
seems glad to live :—to breathe, to see, to move his little arms,
is already a happiness for him. He welcomes all nature with
gratitude ; it seems as if the young spirit took wing, and flew
to meet her benefits. Let us not touch him ; let us leave the
child to delight himself with her ; let us fear to check the
sweet harmony that is formed within him. As long as his
look, full of intelligence, proves that his mind is occupied,
let us never interrupt the train of his ideas. Let us beware
of restraining his mental activity ; it is more real and
salutary than that which comes from us.

"I believe that we often agitate children too much ; it is
not best to leave them to become weary, I grant : *ennui* is a
lethargy of the soul ; but that which incessantly leads to such
a malady, is the excess of the diversions that we believe it
necessary to give to young infants. One extreme gives birth
to its opposite, and calm situations are the only ones that
become indefinitely perpetual. The more serenity a child
has had, the more he will desire it ; this disposition may be
permanent, but it is not so with gaiety. Even with children
who love her much, joy is a passing inhabitant of this world ;
she touches it with a light foot. It is necessary to receive
her always kindly, sometimes gently to call her ; but when
she is once arrived, we ought not to animate her too much.
Immoderately excited, she brings tears in her train ; she
agitates too violently the delicate fibres, which vibrate soon
after in an opposite extreme.

"Consequently it is better to occupy little children with
things than with persons. It is not, as I have said, that the
distinction can be manifest to their eyes, but at least things
are among the tranquil objects which do not excite them.
With them, they make experiments, without thinking of it ;

* Thus we see when a child is carried much in the arms, it cries when
the exercise ceases ; and many mothers are so careless of the future, as to
indulge their infants in a habit of no advantage to themselves, and of great
trouble to those who take care of them. A well-managed child, after
being carried abroad either to ride or walk, will often cry on being
brought within doors ; but having never gained anything by its cries,
it soon stops and turns its attention to something within its own grasp.
But the wise mother soon discovers that too much excitement, by means
of new objects, tends to disturb her child's serenity.

their judgment ripens by involuntary observations. With
persons, on the contrary, their lives partake of sympathy and
antipathy. The action which living beings exert over each
other ; puts all their passions in play and even this action is
so much the more animated, inasmuch as with children there
is no communication of thought, and every thing passes in the
dominion of feeling. Every one of their impressions pro-
ducing an effect and obtaining a response, all their desires
are expressed as soon as conceived ; hence tears and anger
are of necessity perpetually changing situations. The
impossibility of fixing upon any amusement, upon any train
of ideas ; a fatiguing inquietude ; that impatience, that
mental disturbance so injurious to all ; a state of irritation,
injurious to the health also—are the results of the action too
long continued which we exert over these little beings, and
that we permit them to exert over us.

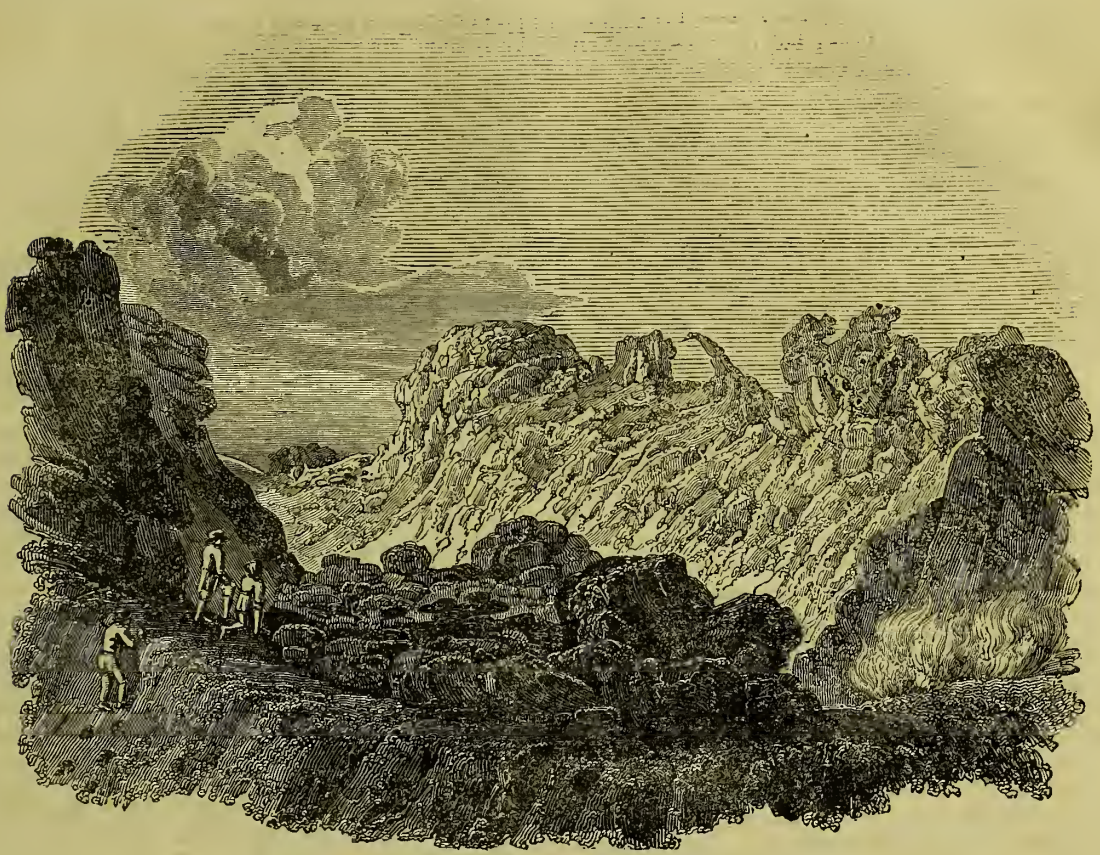
"An infant of six months, half lying in his cradle and
playing with his little hands, is in the happiest situation ; it
is the same at nine or ten months, when, seated on a thick
carpet, he amuses himself with dispersing various objects,
that he endeavours afterwards to catch again. While he is
thus playing, you can return to your occupations ; a look,
some token of intelligence from time to time, is sufficient to
tell him that he is protected, and his security is perfect.
Never deceive such a feeling. Go to him, if he appears to
suffer, or if his mental action begins to languish, he can no
longer amuse himself with what surrounds him. Then,
however, do not hasten, and endeavour to give a short
exercise to his patience : try to make him attach a meaning
to this simple word—*wait*. If this word has always
expressed a sacred promise, he will learn from it gradually an
important signification : the child will comprehend that you
are decided to succour him, but that you have a vocation
yourself, that he ought to receive and not exact ; and he will
be more grateful and more tractable for it.

"A skilful German physician, M. Friedlander, was
astonished on arriving in France, to see to what extent they
endeavoured to excite the vivacity of little children.

"It appears to me," says he, "that mothers play too
much with their children in the first era of life, and that they
too early excite their vivacity. In Germany, we often hear
mothers recommending it to their children to keep still."

"What reflections are not suggested by this simple
observation ! Who can determine the influence of this dif-
ference of conduct ! Who shall say if the remarkable
preponderance of the active faculties among one nation, and
of the contemplative among the other, may not be assigned
to this same cause, which is reproduced under various forms
during the course of education. Do we know what we are
doing, when we accelerate the progress of the faculties in
one of the great divisions of moral being, and thus compara-
tively retard them in the other ? Can we judge to what
extent the ones thus neglected are of themselves necessary,
and how far necessary to counterbalance others ? It is
undoubtedly difficult to give exercise at pleasure to the facul-
ties which, as their name indicates, are purely passive or con-
templative, but always require time and tranquillity for their
development.

"I know there are times of indisposition and suffering,
when we are obliged to divert children, and thereby keep
them in motion. But because there is something opposed to
the execution of the best plans, we ought not therefore to
lose sight of them. Mothers can acquire the talent of
breaking habits gaily, and taking advantage of happy
moments to recommence anew. Every thing is of con-
sequence in education, and nothing is irreparable : this is a
truth we cannot know too much."



View of the Crater of the Peak of Teneriffe.

THE PEAK OF TENERIFFE.

IN the Atlantic Ocean, and very near to the coast of Africa, is a group of thirteen islands. Their modern name is the Canary Islands; but the ancients called them the "Fortunate Islands," on account of the exceeding excellence of their climate. Geological examination shows all of them to be of volcanic origin. This is especially the case with Teneriffe, the soil of which is generally and strongly impregnated with sulphur. The whole island is a collection of mountains, the principal of which—the Peak—is a vast volcano. At present, it merely discharges sulphureous vapours from various fissures in its surface; but several eruptions have formerly taken place, one of which, at the beginning of the last century, destroyed the principal harbour of the island, and did much other damage. In the top of the Peak is a wide abyss, about forty yards in its greatest depth. This is called by the Spanish name of the *Calderd*, or kettle, and is the now exhausted crater. So strongly is the soil within this hollow impregnated with sulphur, that if a portion of it be rolled up, and a light applied to it, it will burn as strongly as brimstone itself. Perhaps we cannot better illustrate our engraving, than by quoting a passage from the learned and enterprising traveller Humbolt.

"The Peak of Teneriffe, from its slender form and local position, unites the advantages of less lofty summits to those
No. 220.

which arise from very great heights. We not only discover from its top a vast expanse of sea, but we see also the forests of Teneriffe and the inhabited parts of the coast in a proximity fitted to produce the most striking and beautiful contrasts of form and colour. We may almost say that the volcano crushes with its mass the little isle which serves as its basis, and shoots up from the bosom of the waters to a height three times loftier than the region where the clouds float in summer. If its crater, half extinguished for ages back, were to shoot forth flames as does that of Stromboli, the Peak of Teneriffe would serve as a light-house to the mariner in a circuit of upwards of seven hundred miles!

"When seated on the external edge of the crater, we turned our eyes towards the north-west, where the coasts are dotted with villages and houses: at our feet, masses of vapour, constantly driven by the wind, afforded us the most variable spectacle.

"An uniform structure of clouds, the same as we have just described, and which separated us from the lower regions of the island, had been pierced in several places by the effect of the small currents of air which the earth heated by the sun began to send towards us. From the summit of these solitary regions our eyes hovered over an inhabited world. We enjoyed the striking contrast between the bare sides of the peak, its steep declivities covered with scorice, its elevated

plains destitute of vegetation, and the smiling aspect of the cultivated country beneath. Notwithstanding the great distance, we distinguished not only the houses, the sails of the vessels, and the trunks of trees; but our eyes dwelt on the rich vegetation of the plains enamelled with the most vivid colour."

INDIA RUBBER,

ITS USE IN MANUFACTURE.

THIS article, of which the proper name is caoutchouc, and which the French call elastic gum, a very appropriate and accurate name for it, is the coagulated sap of a tree which grows very numerous in Africa and South America. Though it is capable of a truly wonderful extension, its fibres are so solid that it readily contracts to its proper dimensions. This quality has of late years been duly valued, and we make use of this substance in the manufacture of a variety of useful articles, though, until a comparatively recent date, the sole use to which it was put was that of erasing from paper the marks of black-lead pencils.

In addition to its great toughness and elasticity, caoutchouc possesses a remarkable capacity for resisting moisture. After repeated and very expensive experiments, our manufacturers have discovered means of working a preparation of it into a kind of lining for the cloth of cloaks, which resists rain, however heavy or of however long a continuance. It is also formed into shoes and galoches; and their uses, in a climate so humid as ours, and in which exposure to wet is so frequent and fatal a cause of pulmonary complaints, painful in themselves and mostly terminating in death, are truly to be described as invaluable. A correspondent assures us, that at the manufactory of Messrs. Hall and Co. of Wellington-street, galoches of this material are allowed to float for three months and upwards in water, and that at the end of that very long exposure to fluid action, not a particle of moisture can be observed to have penetrated them!

Reflecting upon the important uses to which an article thus impervious to moisture is convertible, it is not a little remarkable how very recent is our appreciation of its value; and, reflecting upon that fact, all who devote themselves to science, whether professionally or as amateurs, should see a new reason for diligently and continually watching and experimenting upon the qualities of even the most familiar objects. In fact, the more familiar we are with any *whole*, the more liable, unless we exercise the most untiring vigilance, shall we be to overlook its several peculiarities and properties. India rubber we *now* know to be useful to the manufacturer, though hitherto it was the mere convenience of those who made use of black-lead pencils, either in drawing or in writing. Steam, too, mighty and marvellous as it is, by which we traverse the ocean without the aid of the fickle wind, and by which also vast machines become docile and untiring as though endowed with the human intellect, without being subjected to the frailty and the feebleness of the human body; how recently has even that been fairly appreciated! and yet from the very earliest days every adult human being had as good an opportunity to notice the expansion and the expansive force of vapour as the noble author of the "Century of Inventions."²⁸

The following brief but correct history of the valuable article caoutchouc is from the pen of the correspondent to whom we have already alluded.

* The Marquis of Worcester.

"India rubber was not known in Europe until the beginning of the eighteenth century, and the first mention we have of it in England is from the pen of Dr. Priestley, who states that it is an article well adapted for erasing pencil marks. Great ignorance appears to have prevailed respecting the origin of this substance generally throughout Europe, until a deputatation of the French academicians undertook a voyage to South America just a century ago (the year 1735) for the purpose of gaining the correct admeasurement of a degree of the meridian. Other subjects connected with science and natural history engaged their attention in the country, amongst which was that of caoutchouc, or India rubber.

"They discovered at Esmeraldas, in Brazil, trees from which flowed a milky juice, which, when dried, proved to be India rubber.

"About fifteen years since considerable attention was given by many scientific men to the crude material which had hitherto been only used for the limited purposes of the artist. A chemical solvent was discovered which reduced it to a fluid state, and a patent was taken out for applying it to the surface of cloth for waterproof and air-proof purposes.

"From that period successive improvements have been made in working the material itself, and the various articles manufactured from it. From a fluid state it has been again converted into a solid mass in a purified state, which is cut into cakes for the use of artists, and is generally known by the name of 'patent India rubber.' By the same process thin sheets are produced, from which galoches, straps, knee-caps, gum-rings, &c. are manufactured. These and similar manufactures we have seen in great perfection at the manufactory before alluded to. These articles have this manifest improvement over others, that they are free from any unpleasant smell: this has been the great thing to overcome in the manufacture of India rubber. The best solvents for India rubber are, coal oil and the essential oils, most of which will reduce it to a fluid state, similar to glue. Ether, sulphuric acid, and other spirits will produce the same effect.

"The increase in the demand for this article within a few years is perhaps without a parallel; more than 52,000 lbs. of it were imported into England in the year 1830." H.

STATUARY COBBLER.—In an old church in the town of Truro, Cornwall, there is a large massive monument, which is erected to the memory of John Roberts, Esq., who died in 1614. It was originally decorated with many figures, and having fallen into decay, was, a few years since, repaired by order of Miss H—, of Landarick, a descendant of the family. When it was finished, the mason presented an account, of which the following is a literal copy:—"To putting one new foot to Mr. J. Roberts, mending the other, and putting seven new buttons to his coat, and a new string to his breeches' knees;—to two new feet for his wife Phillis, mending her eyes, and putting a new nosegay in her hand;—to two hands and a nose to the captain;—to two new hands to his wife, and putting a new cuff to her gown;—to making and fixing two new wings on Time's shoulders, making a new great toe, mending the handle to his scythe, and putting a new blade to it;" all of which items are severally drawn out and balanced by pounds, shillings, and pence.

FORMATION OF CHARACTER.—We are what we are made by the objects that surround us: to expect that a man who sees other objects, and who leads a life different from mine, should have the same ideas that I have, would be to require contradictions. Why does a Frenchman resemble another Frenchman more than a German, and a German much more than a Chinese? Because these two nations, by their education, and the resemblance of the objects presented to them, have an infinitely greater connexion with each other than with the Chinese.—*Helvetius*.

ON SELF-DIRECTION.

A FEW OBSERVATIONS, FORMING A SEQUEL TO THE ARTICLE ON SELF-INSTRUCTION.

MAN WAS made for self-improvement. As he passes from childhood to manhood, he retains the active powers of infancy, and the forethought and choice of childhood—but he adds to these the power of *self-direction*, by which he again rises by degrees to a higher scale of self-improvement, *if indeed he will now direct himself.*

Self-direction is the mainspring of the improvement of the grown man, if—(alas! that an *if* must have place in the declaration,)—if, indeed, the grown man will direct himself. Nothing can be plainer than the declaration; no limitation more sure than that involved in the condition. Every thing thrives and grows according to its order—according to the laws of its own nature, and its own stage of being. Infancy, by its instinctive activity and diligence, grows to childhood. Childhood, with forethought and choice, submits to the direction of parents and teachers, and thus only, grows to a fair and promising manhood. Manhood, too, can grow to a more vigorous and fruitful manhood—can add ‘knowledge to knowledge, and skill to skill,’—if it will employ its matured powers under a wise and vigorous *self-direction*. He who would improve himself, and grow more and more a man, must direct himself as faithfully as he was directed in infancy by instinct and necessity, and by parents and teachers in his growing childhood.

It were well, before proceeding to consider the elements of *self-direction*, to mark the marvellous falling off, so wont to occur after youth have left the regular and governed pursuits of their childhood and youth, for lack of a *self-direction* in place of that direction of others which ensured their progress, until they ‘came for themselves,’ in good proportion to their submission to it. What the lack is, is made plain by the cases which occur of progress after maturity, as rapidly as before—often more rapidly—amidst the busiest occupations of active life. For these cases are found, only, where a faithful *self-direction* has ensued: while the more numerous cases are unimproved and unimproving as manifestly, because *self-direction* is wanting,—because the man is not, in these higher matters, the master of himself. Let us assure ourselves, that the essential advantage enjoyed by the young—that which gives them a growing education—is no other than this; and that the slackened or arrested progress of full grown men, is from no other cause.

Youth certainly has *some* peculiar aptitude for learning; though that no doubt decreases at every step from infancy. The first fresh and vigorous leaves die, while the firm trunk and limbs of the growing sapling give promise of the spreading glories of the tree. It cannot be that the vital strength which was destined for a nobler and later work, is exhausted in the first rapid growth; and that under proper cultivation, man may not grow and bear fruit even to old age. It cannot be the peculiar aptitude of childhood, which secures so universal a progress and improvement: it is due to the direction which is given by parents, guardians, teachers, masters, and the whole expectation and condition of society; all aiding that *self-direction* so apt to be wanting after maturity. The young improve because they yield obedience; in proportion as they yield obedience to the laws of progress in every well-directed family and school; because they learn their appointed and progressive lessons regularly and well. They keep the path which is opened before them; and therefore reach, in proportion to their fidelity, the eminences of knowledge and improvement, to which they lead upward. The true secret of the improvement in schools, colleges, and apprenticeships, is their wise, steady, and efficient direction

and control. There is, no doubt, qualification for instruction and skill in teaching; but these are not the chief elements of their success, but the plan, and regularity, and authority, which give a fixed, unwavering direction and control.

Now, if at the point where the direction and control of others ceases, *self-direction* is not ready, what wonder is it if the progress ceases? or, if experience shall ensure some progress, that it ceases to have a regular, rapid, steady, and noble growth? But if *self-direction* can have place, what can prevent that noble growth; nobler, far, because it now proceeds on the higher principles of mature life, *self-direction*, and *self-control*? It needs but that youth, instead of imagining that their education is finished at the stage where parents and teachers have left it, should enter upon that new office to which they were gradually trained and inducted in the later years of their nonage. Such fidelity would advance them even more rapidly than before, and would exalt them to the true dignity of men; and, might we suppose it the uniform and general endowment of adult life, would elevate society far above any former attainment, and would present a new and noble chapter in the history of man. Such fidelity will extend, in society, in proportion as a conscientious desire to improve every talent in obedience to the Creator shall extend; or, rather, in proportion as this conscientious desire, while it grows, shall regard the mind and its possible endowments as the highest talents to be cherished in obedience to God. Let us hope that every attempt may promote, in society, the extension of such a conscientious desire for self-improvement—of such a conscientious *self-direction*. In this hope, I proceed to state what seem to me to be the elements of *self-direction*.

1. *Self-direction* supposes a perception of the undoubted truth, that, in no state of life, there can be any limit to valuable knowledge and skill;—that, in every state of life, more and more knowledge, and more and more finished faculties are necessary to man, in order to secure, to the best advantage to himself and others, present, progressive, and final well-being. Self-improvement must proceed on the ground of the progressive nature of man—of its progress towards a benefit—which failing, some advantages to one's self and others must be lost. No doubt there are branches of knowledge and modes of skill not suited to the condition of this or that individual; and which of course are not to be sought after. Yet, it is impossible for any human being to be so situated that he does not need to know something more; that he has not something more to learn; no mental faculties to improve; no more skill to acquire. *Self-direction* supposes this desirableness and need of improvement perceived and acknowledged by the mind.

2. *Self-direction* supposes a plan of self-improvement—a law of progress, adopted for the guidance of the life—such as we must suppose every person of tolerably early education capable of forming, if he will, from the influence of that law of progress under which he has advanced thus far, from the advice of friends rightly esteemed more capable than himself, and from the advice and examples to be found in books within every reader's reach. This plan must be supposed to embrace two designs, either of them sufficient to prevent the young student from ever getting out of work: a preparation *first* for the immediate and daily emergencies of life, both in his own proper calling and in his common condition and relations as a man; and, *secondly*, for the growing demands of life, when five, ten, twenty, thirty, forty years may have passed away: when property may have

increased or diminished, and children may have grown to a higher demand on parental skill; and intimacies are multiplied with all the relations of society. Such preparation is demanded of the young for the business of maturity; and the plan of education is contrived on purpose to secure it. In like manner must the plan of adult self-improvement look out for the growing claims of future life.

3. But a plan is unavailing, if it be not executed; hence self-direction supposes *self-government*, securing conformity and obedience to the adopted purpose of the life. He who would improve himself, must *govern himself*—must *control himself*, as to the time, order, and duration of those pursuits embraced in his determined plan. And at the time, in the order, and for the duration, he must *compel* his faculties to attend to their appropriate work; he must fix attention, awaken conception and invention, revive memory, and prolong thought, so that the labour may accomplish its appropriate design. How difficult all this is, and how easily hindered, the most successful can bear witness; while minds ill-informed and incapable, dull and stagnant, everywhere give proof how apt self-government is utterly to fail. Its necessity will best appear, and its attainment be best aided, perhaps, by a notice of the occasions when it is wont to fail.

1. The motive is likely to fail. The advantage proposed is not immediate upon each single effort. It is so distant and indirect, as to be only dimly and obscurely seen; and is often of a nature which cannot be perceived, except as the man actually advances in the improvement proposed. A plan laid on general grounds, in view of the experience and testimony of others, has slender chance of holding its dominion over the mind, while its issues are so deeply hidden in darkness: if there be not a master, it will every day be set aside by the feelings and impulses of the moment, and give place to the whims and caprices of an idle and vagrant mind. Whoever will improve himself, must be able to govern himself by the plan he has formed, and the evidence on which he formed it; not varying, though he cannot see the promised advantages. He must do for himself what the teacher does for the young pupil, when he requires him again and again to study that of which he does not and cannot yet see the use.

2. The natural indolence of all men presents a constant hinderance; especially amidst the allurements to momentary gratification to which men are every where exposed. Even learned men, long trained to the habit and love of study, are said often to have found themselves so paralyzed by their natural indolence, as to have resolution only for the idlest and easiest occupations, until roused by some fixed engagement or absolute necessity; and this, even though their professions give promise of immediate and valuable rewards at every step of their progress. I believe it is the great Johnson who says, that no author writes except with a bayonet at his back:—*i. e.* without an immediate and most urgent motive, as the dread of hunger, houselessness, or nakedness. If learned and long-trained men need a master in their outward circumstances, as no doubt they often do, a man who can live without learning, who can live and grow rich, perhaps, with what his parents and the school-master gave him, is not likely to overcome his natural indolence, and pass triumphantly all allurements, unless he will be his own master, and unless he will govern himself with vigour and decision.

3. This hinderance must be augmented by the difficulties which attend any course of improvement,—which must grow as it grows. There is no easy way of self-improvement; none without growing difficulties. For what is improvement but searching out, with an imperfect eye, what is obscure;

improving the sight by groping for objects in the dark; attempting to recollect what is almost vanished from the memory, and to fix it lest it vanish utterly away—to re-light or preserve the flame which every wind is ready to blow out—judging where false conclusions claim to be the true—following the *ignis fatuus* a little into the quag, that one at length may be sure where is the light which illumines the solid ground. It is amidst such necessary difficulties, increasing as one advances, that the young mind is most likely to give up in indolence or despondency. Lured by the commendation and example of others, the youth imagines to himself an easy task. Of course, if he advances, he must be disappointed; and will retire unless he is master of himself—unless he can and will urge himself forward through darkness and uncertainty, at every new emergency, until the vigour of that self-command, and the impulse of the renewed effort, and the joy of success, shall renew the pleasure of the toil, and set the master at his ease again.

4. Again, one of the strongest motives at the beginning must necessarily fail in the progress of this and every undertaking. The grace of novelty must fail. Self-improvement in general, and successively in each particular pursuit, must become an old story; must lose, by custom and familiarity, the strong interest which is felt in any new object. Then, of course, indolence, or fatigue, or discouragement amidst real difficulties, or a fancied uselessness, have free scope; and he who began with all imaginable zeal, is in a week, or a month, or a year, as indifferent and dull as half a brute. Especially when the influence of novelty ceases, a master is indispensable who can hold fast his authority and his rule, until—for here, too, authority will not long have to sustain itself by mere main strength—the intrinsic pleasure of acquiring knowledge, and its growing use, shall establish a deep, living, and permanent interest in the mind.

5. Again, no single instance of neglect is of any considerable consequence. If each neglect were but a single act of omission amidst days and weeks of regular diligence, and did not contain within itself the principle of other and numerous neglects, it would not check the general progress. It is because that single neglect is one of a hundred, of a thousand, of ten thousand, that it is the seed of ruin to the whole plan and desire of self-improvement. Yet ruinous as it is, each, successively, seems to the ill-governed mind, as it is, the only one; or, at worst, as the last one: and under that deception, months and years are passed in neglects, each of which, if a single omission, would be of no account; but all of which have exhausted the time and the courage, and have left the mind not only without the attainments proposed, but with less will and power to make them at every stage of that neglectful life. A MASTER is necessary, who will not be deluded by the temptation of the moment—who will be ever at his post—and who will not wink at all transgressions, because each is single and alone.

6. Another hinderance occurs in the discouragement which is the consequence of neglect, after there has been any desire or plan of self-improvement. Presently it is found that by means of neglects, each of which seemed of little importance—for lack of self-government a thousand times repeated—the man is incapable of the duties which are actually forced upon him, in the extending connexions of his life, or of profitable employment otherwise at his command. Then the necessity of all improvement is made plain; and the despairing wish is felt for that work of years, which in a week or a day is utterly impossible. Happy the man in whom all the elements of self-government are not gone when he has reached this mortifying point of experience; who can arouse courage for a renewed attempt; who

can resolve that he will not be the victim of indolence or cowardice; who has decision and energy to become, after discouragement, *master* of himself. From this point many have started, and redeemed their losses. Made wise by one defeat or more, they have at length gone forward boldly to victory.

7. Success—such as must occur where all the elements of self-direction are alive and active—success presents another hinderance. As certainly as a man lives, so certainly will he increase in knowledge and capacity who governs himself in well chosen pursuits. His success will be cheering, and unless society be much altered from its present state, distinguishing. Then, partly by self-flattery, partly by the flattery of others, (harmless, unless it quickens self-flattery,) the advancing student may become vain-hearted, and either relax or misdirect his efforts—seeking, mainly, food to self-applause, instead of the proper nurture and exercise of the living soul, and fit only for the reproach—"Seest thou a man wise in his own conceit; there is more hope of a fool than of him." When the character is thus debased, neglect or

misgovernment must prevail. In the progress to that debasement, however, the *master* has his place of watchfulness and energy: for ruling his own spirit, meekly bearing distinction, humbly joyful in success, he is boldly pressing forward in his course.

8. Finally, all other hinderances are abetted by the influence of society. True, there are examples of self-improvement, not a few, scattered through the community; yet they are too few to move the irresolute, and to force forward those who will not force themselves. I do not know the neighbourhood whose example and spirit are likely to prove a steady and strong current, bearing along in the course of self-improvement, even him who has the least will, and almost him who has no will. Whoever will improve himself must have the stream within—must be able to sail on, without the tide, and if need be, against the tide;—must have a will, and a plan, and an authority, within himself;—must be self-resolved and self-governed: without example—against example—and if need be, amidst ridicule, and reproach, and scorn.

EDWARD THE BLACK PRINCE.

WHEN great men are prematurely cut off, posterity are disposed to attribute to them almost every virtue that can adorn humanity, and fondly imagine that, had they lived, they would have outshone all that preceded or followed them in the station they would have occupied. This is peculiarly the case with crowned heads and heirs apparent. The subject of our present sketch is lauded highly by historians, and, no doubt, deservedly; but, had he lived to ascend the throne, his measures might have been such as would have tarnished his fair fame, and power might have corrupted those virtues which gave promise of great good to the nation.

Henry V. was cut off in the midst of conquest and before he had reached the meridian of life, leaving a fair fame behind him; but had he survived to old age, his early propensities might have been as detestable as his memory is now honourable. The same observations will apply to Prince Arthur, son of Henry VII., Prince Henry, son of James I., the Duke of Gloucester, son of queen Anne, and George, prince of Denmark, and the Princess Charlotte, daughter of his Majesty George IV. Providence, by removing them at an early age, has insured to them a fair reputation which they might have forfeited, had they attained to empire and been spared to old age.

Edward, surnamed the Black Prince, because, according to the popular tradition, he wore black armour, was the son of Edward III., and born in the palace of Woodstock, June 15th, 1330. We have little account of his education, but may justly infer, from his early exploits, that he was diligently instructed in the military tactics of the day, and exercised in all the athletic amusements which qualified the high-born to perform deeds of valour at the head of armies. Literature was then in little request.

As the history of the Black Prince is intimately blended with that of his father, Edward III. we shall give a brief sketch of the most prominent events of that reign, in which he bore a conspicuous part.

Charles IV. king of France, dying without issue, Edward III. claimed the crown in right of his mother, who was that

monarch's sister; but as the Salic law forbade females to ascend the throne, his right was denied, and Philip de Valois was crowned king. Not being in a condition to second his claim by an appeal to arms, Edward dissembled his purpose for the present, and even did homage to Philip for Guienne and Ponthieu, but not without a protest that this was to be no bar to his right. After he had settled the affairs of his own kingdom, which, from the misconduct of the queen mother and Mortimer, had been not a little deranged, Edward called a parliament, laid before it the necessity of his managing the reins of government himself, though not yet of the age prescribed by law, and obtained its ready assent.

His next step was to drive David Bruce, king of Scotland, from his throne, and place thereon Edward Baliol, son of that Baliol whom Edward I. had raised to the royal dignity. The Scots, on his departure, drove Baliol out of the kingdom, which obliged Edward once more to march into Scotland, which he ravaged with fire and sword. This war being terminated, Edward had leisure to resume his pretensions on France. He ordered the duke of Brabant to demand the crown in his name. In 1338 he prepared to second his demand by force; and accordingly opened the campaign the next year, but nothing of importance was achieved. In 1340 Edward assumed the title of King of France, and obtained a great victory over the French fleet, but by the mediation of the pope a truce was concluded for three years.

In 1346, the war was resumed, and Edward landed in Normandy with his son, whom he had created Prince of Wales, and Duke of Cornwall. After ravaging the country, he encamped near the village of Cressy, with a force of about 20,000 men; here he was met by the French army, commanded by Philip himself, assisted by the King of Bohemia, and the Count d'Alençon, Philip's brother. On August 26, 1346, was fought this memorable battle, which may vie with the proudest of England's triumphs. The troops of France amounted to 120,000 men, nearly six times the amount of the English; and had they been judiciously commanded, would probably have produced a different result; but the rashness and inexperience of their commanders rendered

their superiority of numbers a great disadvantage. The battle began about three in the afternoon, by a discharge of arrows from a troop of Genoese archers; but this, being made at too great a distance, was totally ineffectual. That of the English in return did great execution, and put the Genoese to flight. The Count d'Alençon next advanced, trampling to death many of the fugitives, and made a furious attack on the corps commanded by the Prince of Wales. Here the battle raged with great fury; and the Earl of Warwick, fearing that the prince would be overpowered, sent a messenger to request that the king would bring up his *corps de reserve* to his assistance. But Edward, who with an experienced eye had viewed the battle from a windmill situated on an eminence, saw no immediate danger, and therefore returned this answer,—"Go," said he, "and tell my son and his brave companions, that I will not deprive them of any part of the glory of their victory." This animating message induced them to redouble their efforts. The French fought bravely; but the king of Bohemia, and the Count d'Alençon, with a great number of nobles, knights, and gentlemen, being slain, the first and second lines of their army took to flight.

In spite, however, of this unfavourable posture of affairs, Philip advanced with the third line to retrieve the fortune of the day; but his success was not greater than that of his predecessors; he himself was unhorsed and wounded, and being rescued from death by John of Hainault, fled from the field with only five knights and about sixty soldiers. So complete a victory against such odds had never before been seen in that country. The French lost the king of Bohemia, eleven other princes, eighty knights bannerets, 1200 knights, 1500 gentlemen, and 80,000 private soldiers.

After this battle Edward reduced Calais, and was so enraged at the obstinate defence it made, that he determined to put all the inhabitants to the sword, unless six of the most respectable citizens would come to him voluntarily, with ropes about their necks, to be hanged for the salvation of the rest. Six heroic men were found in Calais, willing thus to devote themselves for the salvation of their fellow-citizens, but at the intercession of Edward's queen, Philippa, they were pardoned.

Philip de Valois dying in 1350, his son and successor John found means to prolong the truce to the year 1355, though some petty hostilities were continually carried on. At length, on its expiration, the Black Prince was sent over to renew the war. He was met by the king of France at the head of 60,000 men, near Poitiers, and a memorable battle was fought September 19, 1356. The usual fortune of the prince attended him on this occasion. He gained a complete victory, above sixty lords and 800 gentlemen being slain, and King John himself, with many of his chief nobles, taken prisoner.

A truce for two years followed this victory, and the prince returned to England, bringing with him the captive king and princes, whom he treated with great respect and humanity. Certain conditions were agreed on for the ransom of the king of France; but as the states of the kingdom refused to ratify them, that monarch returned into captivity, and died in England April 8, 1361.

A constant scene of war and carnage hardens the heart of the most humane. The Black Prince having taken the city of Limoges by storm, gave up the inhabitants to the fury of the enraged soldiery; but observing three French gentlemen, who with incredible valour were opposing the ravages of the victorious army, he, from respect for their bravery, gave orders to put an end to the slaughter.

A consumption was now making great inroads on the con-

stitution of this excellent prince, and his end was rapidly approaching; yet he lived long enough to see the conquests which had been made with the sacrifice of so much blood and treasure recovered by the enemy, except Calais. He died June 8, 1376, in the fortieth year of his age, and was interred at Canterbury.

SUGAR,

ITS NATURE AND USEFULNESS.

It has been elsewhere remarked, that the more familiar we are with the use of any article, the less inclination is there to inquire carefully and narrowly into the peculiarities of its nature. Perhaps nothing in general and daily use can better illustrate our meaning than sugar. Who is there who does not daily see and make use of this article? And how large and important an item it is of our commerce! And yet, if we do not vastly delude ourselves, for fifty thousand persons who enjoy this luxury, there are not fifty individuals who know any thing of either its nature, or the artificial process by which it is rendered fit for our consumption.

Sugar is the crystallized juice of the sugar-cane—the *Saccharum officinarum* of botanical nomenclature—a plant with a jointed stem of some nine or ten feet in height, with *bunched* flowers, and flat yellowish-green leaves. It is very extensively cultivated both in the East and West Indies; but much more in the latter country than in the former, whither it was introduced from China upwards of three centuries ago. About the beginning of August, or, in some cases, at the latter end of July, the canes are planted in long and narrow trenches. From each *joint*, such as we see in the *canes* used as walking sticks in this country, a root issues; and in about ten months, that is to say, in May or June, the stems which arise from these roots are in their perfection, the whole of the spongy pith with which their interior is occupied, being by that time filled with the sap which is the *sugar* in its natural state.

The first business of the planter is to cut down the stems of the plants thus perfected. The leaves being torn off and cast aside, the stems are cut into lengths of from two and a half to three feet, tied in small bundles, and carried to "the mill." Here they are subjected to the action of three perpendicular wooden rollers, strongly sheathed with iron; and the juice thus expressed from them, flows through a grooved channel into a large vat. From this it passes along a leaden channel to the boiling-house, where it is put into large coppers, under which the fiercest possible fires are kept constantly burning. While the juice is being boiled, powdered lime is thrown into it. This admixture is necessary to take up an acid which the raw juice very largely contains; but it is much to be desired that some other means could be discovered of effecting this, as it is the lime which renders sugar, when used in large quantities, rather injurious; for the saccharine juice, in its native state, is one of the most nutritious and fattening substances with which we are acquainted. In proof of this, it is only necessary to observe, that the negroes, dreadfully hard as they work during the boiling season, are invariably in excellent bodily condition during that season; the most meagre and unhealthy among them becoming plump, even to corpulence, simply from their habit of chewing the crushed canes. The refuse canes, too, are given to the horses and pigs; and it is well known that the former are in wonderfully fine condition while confined for the most part to this fodder; while West India pork is so incomparably more delicious than

that of any other country, that persons who have been long resident in the West Indies have been known to affirm that the expense and *désagrémens* of the voyage thither would be well repaid by the enjoyment of that single luxury. After having been boiled for some time with lime, the saccharine juice is conveyed to a large copper, called the evaporating boiler. While being boiled in this vessel it is very carefully skimmed from time to time, and thus freed from all the impurities drawn out by the heat and the lime. It is now transferred through a series of smaller boilers; powdered lime, in such quantities as the peculiar state of the juice demands, being again added to it.

When sufficiently boiled, it is removed into shallow wooden troughs, somewhat similar to what our brewers call *coolers*. As it cools, the pure sugar crystallizes, and separates itself from the impure juice; which latter, under the name of molasses, or treacle, is exported in casks, and used, especially in England, in immense quantities.

Here, so far as its native countries are concerned, the manufacture of sugar terminates; but it is now only what we call *brown*, or *moist* sugar; but the *loaf*, or *refined* sugar

has even yet to be made. This is done in Europe, and especially in England and Germany. The sugar is boiled with water and lime, and bullocks' blood, or the white of eggs, (generally the former,) having been added, the whole is strained through woollen bags into conical earthenware moulds, of that shape, of course, in which we receive the loafs of sugar.

Sugar-candy and barley-sugar, delicacies which all of our readers are no doubt sufficiently intimate with, are merely the confectioner's preparations of the very finest sugar. Rum, a spirituous liquor too well known to need description, is made by subjecting molasses to the action of the still.

Though the sugar-cane is chiefly and most extensively cultivated in the East and West Indies, it is likewise much cultivated in Spain, into which country it was introduced by the Moors some ages ago. In Granada this is especially the case; one very paltry village in that country possessing four mills, which are valued at the very large sum of twenty thousand pounds sterling.

DEMOCRACY ILLUSTRATED, OR THE RISE AND FALL OF THE ANCIENT REPUBLICS.

No. I.—SPARTA. (*Continued from p. 70.*)

WE learn from Plutarch that the sedulous care with which Lycurgus provided for the continued prosperity and greatness of his country was by very much the more successful than, with so deep an insight into human nature as Lycurgus possessed, even he himself could have anticipated. For five centuries his laws were scrupulously adhered to; and during the whole of that very long time, Sparta was happy at home, and powerful, respectable, and respected abroad. The Ephori, to be sure, were called into existence during that time; but Plutarch* very truly observes, that the creation of those magistrates was "not a relaxation, but, in fact, an extension of the civil polity of Lycurgus." But though, abstractedly considered, the institution of the Ephori was what Plutarch represents it, yet the concrete effect,—the effect, that is to say, as mixed up with and modified by other circumstances,—was to change the supreme power in the state to a body of magistrates, selected from among the people; so that, by this means, indigent men were liable to be exposed to the temptation of becoming venal magistrates. Nor was this a merely fanciful supposition. Even in Aristotle's own time, the Ephori, as he allèges, were at once venal and tyrannous; and even the kings were obliged to be subservient to them to an extent which rendered the government a mere delegated democracy.

The tyranny of the Ephori, destroying, as it did, the possibility of restoring and maintaining that unanimity of the whole Spartan people, upon which the wise and far sighted Lycurgus mainly relied for the preservation of the real greatness and prosperity of Sparta, was one great cause, perhaps by far the greatest cause, of the decline of the Spartan republic. But another powerful cause of that decline is to be found in the fatal departure from the rigid simplicity of the laws of Lycurgus, and especially from the departure from his law against attempting foreign conquests. Having once begun to fit out foreign expeditions, they found their massive, but triflingly valuable iron money of comparatively little use in defraying the expenses thus entailed on them. Hence an injurious thirst of gold, and hence

a base servility to the Persians, in order to obtain the means of making new conquests, or still farther trampling upon the unhappy people already conquered. In the reign of Agis I., Lysander, by the conquest of Athens, literally deluged Sparta with the precious metals, and with articles of mere luxury and show. From this moment, the decadence of Sparta though probably little obvious to the Spartans themselves, was certain. True it is that the Ephori and the senate, when they decided that "gold and silver money might be admitted for the service of the state," decided also that any private person found with such monies in his possession should be put to death; and, indeed, this penalty was actually inflicted upon Thorax, a friend of Lysander, for being discovered to be possessed of a quantity of silver. But the admission of gold and silver into the country were fatal; the qualification was impotent. The barrier erected by the great and wise Lycurgus was fatally and effectually broken down. The state becoming mercenary, individuals could not long remain pure. The state becoming fond of subsidies, and employing those subsidies as a mean by which to perpetrate injustice and extort money, individuals soon learned to love the glitter of precious metals, to sigh for foreign luxuries, to loathe the simple diet and the manly manners of their forefathers; in a word, to expose themselves to the corroding influence of those vices which render a people an easy prey, alike to the domestic tyrant and to the foreign foe.

In the first instance, the institution of the Ephori was justifiable by the circumstances which led to it. The perpetual and virulent disputes between the ruling powers obviously endangered the commonwealth, and called loudly for some mediatorial power to settle the disputes of the rulers, ere those disputes should become irremediably injurious to the interests of the ruled. But valuable as the Ephori were in the first instance, they but too early manifested a fierce craving after a despotic power over every portion of the state; and we find that they even went the length of imprisoning, deposing, and even butchering their kings. These, in their turn, sought every means of limiting the power, and trampling upon the persons of the Ephori; and thus the institu-

* In his life of Lycurgus.

tion which owed its origin to a desire to preserve the integrity of the Spartan constitution, as settled by Lycurgus, became the deadliest and most obvious enemy to that constitution.

Another bad quality inseparable from the mode in which the Ephori were called to power is pointed out to our attention by Aristotle. That very acute writer well remarks, that it was extremely impolitic to invest with the government from the most purely democratic power ever known as tyrannical and irresponsible an oligarchy as ever darkened and degraded a nation.

The Ephori—a Greek word, of which the most literal English interpretation perhaps, is the word “overseers”—were a body of men, five in number, elected by the people, and vested with at once a censorial and a dictatorial power—if, indeed, while speaking of Greece we may be allowed to use words drawn equally from the usages and the languages of Rome, Herodotus, Xenophon, and Plutarch, all differ, and differ very widely, too, as to the time at which this new and potent body was called into existence; Plutarch, however, who fixes the date of its institution in the reign of Theopompus, about one hundred and thirty years after the death of Lycurgus, appears to be decidedly the most correct; for during that reign, the king and the senate carried their differences to such a pitch of virulent and insane enthusiasm, that the people had the finest imaginable opportunity to step in as mediators, and to make their meditation between the contending parties, a means by which to diminish, very materially, the power of them both. Aristotle, too, confirms Plutarch as to the date of this great organic change—*change*, we mean, as to its results; for Aristotle tells us, that the queen of Theopompus rebuked him for the facility with which he had consented to parting with so much of his power, and deridingly inquired, “Was he not ashamed to transmit his crown to his posterity so much weaker and worse circumstanced than it was when he received it from his father?” “No,” was the reply of Theopompus, “for I transmit it *more lasting*.”

The consequences, however, showed that the fears of the queen were more justly founded than the confidence of the king; what those consequences were we must relate in a future paper.

AGRICULTURE.

THE cultivation of land, from its engaging the greatest share of the mind, and from its being practised, only by those nations who have attained a considerable portion of civilisation, may justly be considered as one of the liberal arts, tending greatly to promote that high state of refinement which has always proved of most essential service to mankind. Agriculture, thus considered, comprises not only a knowledge of the mechanical process of ploughing, mowing, reaping, &c., but also a knowledge of astronomy, and of the particular seasons in which the different operations above mentioned should be performed;—the various seeds sown and planted; the different soils; the manners and modes of management proper for each, and the plants and roots most congenial to the nature of the soil. A scientific agriculturalist should be capable of making experiments on the various kind of crops his land will yield, to ascertain those which are most valuable and which will least impoverish it: to prove also what is the best succession of crops, so as to insure a regular yearly produce without impoverishing the ground. He should also be well acquainted with the excellencies and defects of different breeds of cattle, the

proper method of rearing them, and employing them to the best advantage: the various diseases to which they are subject, and the most efficacious modes of curing them; and these he should study on scientific principles, aided by the dictates of experience.

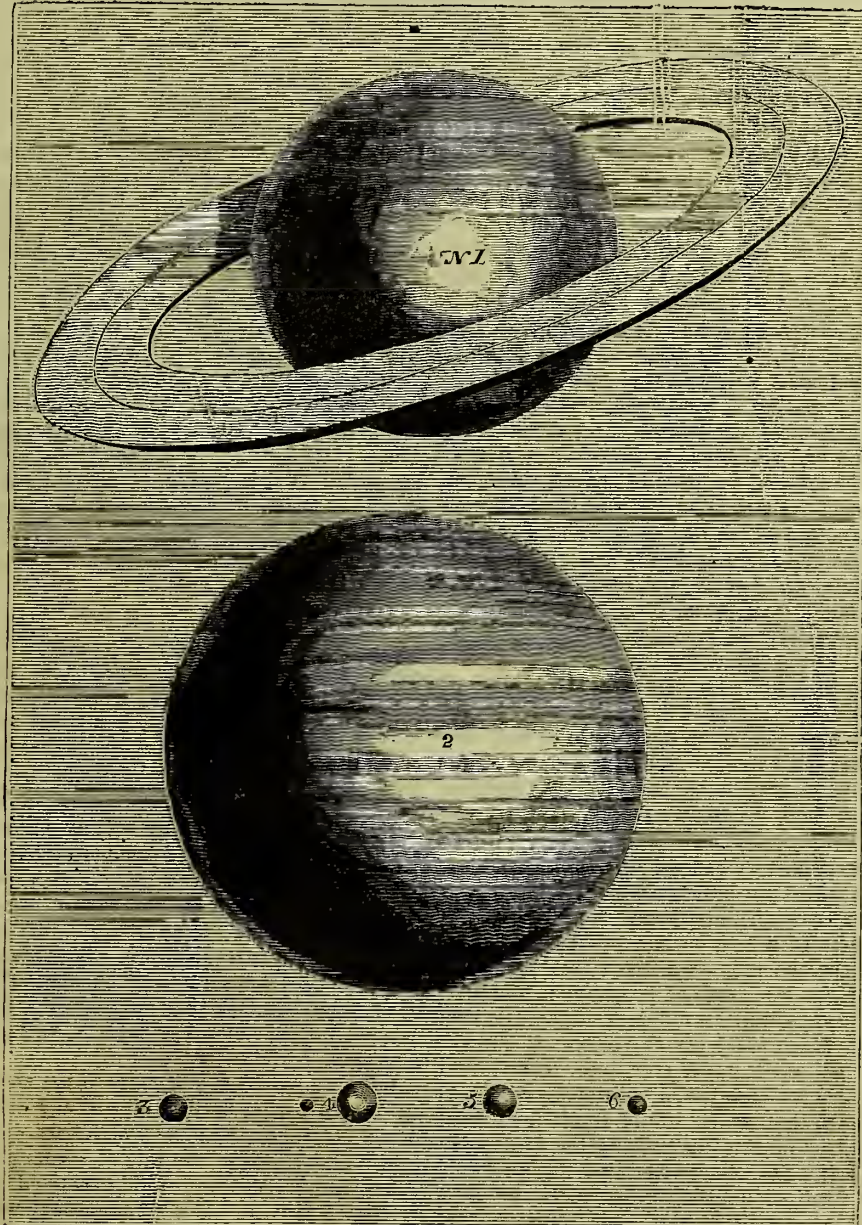
Such are a few of the important duties required of an agriculturist who practises the cultivation of the earth as a liberal art, in which point of view it may justly be considered as a pursuit of the highest importance, and is by no means unworthy of the serious attention of those who rank even in the highest stations of society. It was held in such high estimation among the Romans, that one of their greatest generals, Cincinnatus, was called from the cultivation of his little farm to head the armies of the commonwealth, and direct the affairs of state with absolute authority as dictator. In modern times, we have two instances of its engaging royal attention; one in the person of George III., who devoted himself to the pursuit of it with unwearied eagerness, and the other in the Emperor of China, who annually ploughs a furrow, holding the plough with his own hands, in order to encourage attention to this art among the most ennobled of his subjects.

Agriculture being held in this high estimation among civilized nations, should not be entrusted solely to the hands of mere ignorant clowns, who can scarcely read and write, and who, in consequence of their extreme ignorance, are the slaves of vulgar prejudices; but should be placed under the direction and guidance of those who are both competent and willing to qualify themselves for a scientific discharge of the duties it requires. There is not one of the liberal arts, commonly so called, to which profound and varied knowledge is not necessary for its cultivation. We have schools and colleges for the instruction of pupils in medicine, law, architecture, and a variety of other arts and sciences, and yet an occupation on which even the very existence of every individual depends is left, almost exclusively, in the hands of uncultivated persons, who must follow the beaten track which custom has left for their guidance, because they have neither mental power, knowledge, or confidence, sufficient to venture beyond it. The almost superabundant produce which the earth is capable of yielding is beyond all possible computation; every improvement in culture has occasioned more abundant crops, and there is no doubt that if agriculturists were properly educated for the profession, and societies formed for the dissemination of agricultural knowledge, as is already the case with almost all the liberal arts, a given portion of land might be rendered capable of supporting in comfort, and comparative independence, a much greater number of occupiers than it does at present; thus to a certain extent destroying the two great evils of all civilized society—poverty and crime.

It may be said that great attention has already been paid to the pursuit of agriculture, and that numerous experiments have already been made at great cost, most of which have entirely failed; but it should be remembered that this is the case with all the arts and sciences, simply because there is not one of them which can be brought to perfection at once, and that the failure itself, by affording a stimulus to further experiment, led to the astonishing success which has so often crowned apparently the most hopeless attempts at all improvements. If the efforts of individuals have, as is well known, been productive of the most beneficial results in increasing the fertility of the soil, how much more might not be effected by means of a national institution for the advancement of the science of agriculture, conducted by able professors in such different branches of knowledge as are necessary to the formation of a complete agriculturist?

Lands of different kinds might be appropriated for the purpose of making experiments, and the results of each carefully inspected and recorded; failures minutely investigated, with a view, if possible, to discover their cause; and trial upon trial made until the desired improvement should be effected. Unless some such plan as this be adopted, our farmers must be content to put up with the losses which their present ignorance so commonly occasions, by inducing them to reject all new

methods of procedure merely from their inability to judge respecting their propriety or otherwise; but if all agriculturists were to receive a liberal education, and be instructed in such sciences as were necessary to their improvement in the profession, they would not have to contend with half so many obstacles, or feel those heavy losses and disappointments which fall so heavily upon them at present.



Comparative Sizes of the Planets.

NO. IV.—SELF-INSTRUCTOR IN ASTRONOMY.

A GENERAL VIEW OF THE PLANETS.

THE chief difficulty in writing upon any thing connected with astronomical science arises from the all but absolute impossibility of the reader perfectly appreciating the *distances* of which we have occasion to speak. To illustrate this to

his own mind, let any reader think of a country as being about six thousand miles from England. In the words themselves there is nothing very striking; they come sonorously and well from the lips—but what *idea* is attached to

them? It is quite *possible* to attach a correct, or a very nearly correct idea to them; but though quite possible, it is by no means so easy a matter to do so as at first sight it may appear to be. It is by gradually and carefully comparing the *name* and the *reality* of distance on a far less magnificent scale, that we must proceed. Those of us who reside in the country have a very exact notion of one mile, from having repeatedly walked from one mile-stone to another; those of us who live in the metropolis have very nearly as exact an idea of a mile, from having repeatedly passed along a street—Oxford-street, for instance—which is reputed to be *about* a mile long. Of *one* mile, then, we have a very good idea, because we have repeatedly experienced the precise amount of time and exertion necessary to enable us to accomplish that distance. But does it follow that we have any thing like a correct idea of the reality of six thousand miles? Not so. We know what one mile is, and we know that $1 \times 6000 = 6000$. But the simple act of multiplying the one number into the other gives us nothing like a correct idea of the *reality* of the product. Our notion of it is very vague—we think of it as being a *very* vast distance; if very imaginative, we may not improbably even exaggerate the distance; but of *the* distance, of the *exact* distance, we do not, unless by mere chance, even approximate to a just idea. Let us see, however, if we cannot find a means of getting at something more near the truth—at something more near that idea which we should have of the distance if we had actually traversed it awake and observant, as when walking on the pavé of Oxford-street, or on the footpath between the two mile-stones in the country. Having an accurate notion of the *reality* of one mile of distance, let us keep that and the time and labour requisite to traverse it carefully in view. Let us now, instead of leaping at once from 1 to 6000, *walk in our thought* only from 1 to 100. The difference between even those two numbers is very great; but it is not too great for our power of appreciation. Taking ten minutes for the time in which a moderately strong and alert man will walk a mile, we at once see that the same man, supposing him to walk on uninterruptedly at that same rate, would take sixteen hours and forty minutes to accomplish the task of walking one hundred miles. And here we have at once secured the means of having pretty nearly as correct an idea of the *reality* of that distance which we *call* a hundred miles, as we have of the one mile which we have walked so often upon the London pavement or the country road,—for we are no longer speaking vaguely of a long distance. We know the *time* it takes to walk the one mile—we know also the time it takes to walk, at the same rate of progression, the one hundred miles; and comparing the difference between the two *times*, of both of which we have as positive a knowledge as the greatest philosopher that ever lived, we at once appreciate the difference between the two distances with an accuracy only inferior to that which would result from the painful and laborious task of actually walking the greater of the two distances. Let it not be supposed that this process is either useless in itself or lightly recommended by us. Simple matter as it may seem to have a correct notion of the reality of one hundred miles' distance, it is by no means so simple as it seems; and he who will take the trouble to compare his notion of the discrepancy between one mile and one hundred miles, with his notion of the discrepancy between ten minutes and sixteen hours and forty minutes, will at once confess that we are right. But the process we have recommended is chiefly valuable as a part of a longer process.

We have seen that the difference between one mile and

one hundred is as the difference between ten minutes and sixteen hours and forty minutes. But we read of a city six thousand miles from our place of residence. We venture to affirm, that, except by the process above described, no "tarry-at-home traveller" can have any thing like a just notion of that distance. He may think it vast; but exactly how vast he most certainly cannot. Let us see.

The difference between one mile and one hundred has been shown to be as ten minutes to sixteen hours and forty minutes. But six thousand miles are sixty hundreds of miles: therefore we say—

$$\begin{array}{rcc} \text{ho.} & \text{min.} & \text{days. ho.} \\ 16 & 40 \times 60 = 41 & 4 \end{array}$$

or six weeks all but twenty-four hours. And now, reader, reverting to your *experience* of a mile; remembering how long a distance *that* seemed, and yet remembering that you were only ten minutes in accomplishing it; what an enormous distance, compared to what you ever before appreciated it at, do six thousand miles seem, which would take up all your sleeping and waking hours for more than a ninth, indeed very nearly an eighth part of a year!

If even in reading geography and history, in which we speak only of thousands of miles, it be at once so important that we *should*, and yet so likely that we shall *not* understand accurately the realities of the distances of which we read, how doubly necessary does a simple and yet impressive system of judging of distance become when we read of the planets; when, instead of thousands of miles, we read of *millions*! Without careful and systematic reflection, how vague and shadowy the knowledge we acquire!

Let us speak, for instance, as we now have to speak, of the planets; and our simple system will be found by no means useless.

THE SUN.

The ancients reckoned that splendid orb, to whom we are indebted for the beauty-producing light, among the planets: but our better scientific knowledge makes him a fixed star, the centre of a mighty planetary system, of which our earth, vast as it is, and abounding in wonders, is comparatively speaking but a small part. The reason why the sun appears to us so vast and radiant, compared to the other fixed stars, is to be sought in the difference of distance; were we equally distant from him as from them, his brightness and size would not, as far as would be apparent to us, exceed theirs, and we should at once speak of him as of one of them.

The sun is a spheroidal orb, higher at the equator than at the poles. Of his vastness we may form a very tolerable notion from the fact that his diameter is computed to be 894,000 miles; that of our earth, vast as it seems to us, being only 7,970 miles!

And here we may again refer to the necessity of descending to particulars, in order to get any thing like a tolerably correct notion of the *reality* of a vast distance. We have seen, that, walking at the rate of six miles an hour, it would take us nearly six weeks of uninterrupted labour, during both night and day, to walk six thousand miles. To facilitate our reckoning we will leave out of sight the eight hours, and call it six weeks in round numbers.

We say then,

$$\begin{array}{rcccl} & \text{Miles.} & & \text{Weeks.} & \text{Miles.} \\ \text{If } 6,000 & : & 6 & :: & 894,000 \\ & & & & 6 \end{array}$$

$$6|000 \quad 5,364|000$$

894 weeks;

OR, SEVENTEEN YEARS AND TEN WEEKS! reckoning the year at *exactly* fifty-two weeks. With these figures before us, and reverting to our experience of the labour of walking a mile, and of the time consumed in doing so, can we fail to have a far better idea of the diameter which it would take so many years of travelling day and night to traverse, than if we merely saw and mechanically enumerated the figures 894,000? Few, we think, will venture to assert any thing so absurd; and we strenuously recommend our readers invariably to submit their appreciation of the statements of vast distances to this at once simple and infallible test. Astronomers are enabled to assure us that we are 95,000,000 of miles from the sun; in other words, (and following up the method of judging of distance laid down above,) to walk night and day, at the rate of ten miles an hour, it would take us to traverse this distance one thousand eight hundred and twenty-six years, and forty-eight weeks!

Distant as the sun is from us, he is, as we shall by and bye have to show, yet more distant from the other planets which revolve around him. The ancients, conscious that they derived both heat and enlightenment from the sun, conceived that splendid luminary to be a globe of fire. Setting aside the utter absurdity of an idea which involves the supposition of ignition ever lasting and rapidly going on without diminution of substance, we are enabled, by the excellence to which the manufacture of astronomical instruments has been brought, to discern certain *maculae* (or dark spots) upon his surface, which, of course, could not be there were the opinion of the ancients correct.

Dr. Herschel, that eminent astronomer, whose unwearied industry and admirable telescopes have made him so great a benefactor to science, says, "the sun appears to be nothing other than a very large and lucid planet, evidently the first, or rather the only primary one, in our system; all the rest being truly secondary to it. Its similarity to the other globes of the solar system, with regard to its solidity, its atmosphere, and its diversified surface, leads us to suppose that it is most probably also inhabited, like them, by beings whose organs are adapted to the peculiar circumstances of that vast globe."

THE MOON.

The moon, that mild and beautiful luminary of the night is more completely subjected to the reverent and anxious scrutiny of the lover of science than any other of the heavenly bodies.

Viewed with the naked eye she has the appearance of being a circular *plane*; but viewed by the help of that fine triumph of human ingenuity, the telescope, she is obviously protuberant in the middle—or in other words, her shape is really globular. The spots on the moon, which are

partially visible even to the naked eye, are seen both more obviously and in greater number, when viewed through the telescope; and astronomers have long noticed that some of these spots are dark on the side opposite to the sun, and light on the side next; while others are dark on the side nearest to him, and light on that furthest from him. From these facts, so analogous to what we may observe to take place when the sun is shining on our earth, they infer—and no good reason has ever been given why the inference is not correct—that these dark spots are, in fact, produced by the lunar inequalities of surface; in other words, by high hills and deep valleys. This opinion is adopted by the poet of the Seasons, Thomson—

"Where mountains rise, umbrageous descend,
And caverns deep, as optic tube describes."

Being, like our earth, an opaque body, the moon has no native, no inherent light; but reflects to us light which she herself receives from the sun. And on this account it is that she disappears when she comes between us and the sun; that side which is then turned towards us being also turned from the sun.

OF THE EARTH.

Our position in the solar system is very truly affirmed by astronomers to be an extremely favourable one. Less distant from the sun than Saturn, Mars, or Jupiter, and yet, unlike Venus and Mercury, not so near as to feel his power too violently exerted—the earth seems to be peculiarly selected as, and fitted for, the residence of man during his state of probation.

Speaking of it merely as a planet, and it is only as a planet that our limits will allow us to speak of it here, the very nature of this article forbidding us to speak except in general terms on any of the planets—the first thing we have to remark of it is, its *double motion*. Every day it revolves on its own axis, and every year it performs its circuit round the sun. To illustrate this motion, the reader has only to suppose an orange turning round on a pivot, and both pivot and orange turning *once* round a fixed point in the time taken by the orange to turn upon the pivot three hundred and sixty-five times.*

To these motions we owe the *apparent* diurnal motion of the heavenly bodies from east to west, and the changes of season to which our earth owes most of its comforts and almost all its delights; and to these and its spheroidal shape are owing the climatal changes of different portions of the earth. But our limits will not allow us further to speak of our own planet.

Our Engraving represents the relative size of the planets.

1. Saturn. 2. Jupiter. 3. Mars. 4. The Earth and Moon.
5. Venus. 6. Mercury.

V A N I T Y.

ALTHOUGH vanity is too commonly considered in the light of a merely petty foible, it is, in point of fact, one of the most dangerous of our vices; one which very commonly leads to the commission of crimes the most disgraceful to the perpetrator, and the most injurious to society. In whatever aspect we view it, vanity is sedulously and most anxiously to be shunned by all those who aim at perfection of character; and, be it remembered, it is only by aiming at the very highest standard of character that we can at all reasonably hope to arrive at even a moderately high one. One of the reasons, perhaps, why vanity is less severely censured by writers on morals than it ought to be, is, that it is most commonly manifested in very trivial matters. The

very vain man is generally a very frivolous man; hungry and thirsty as he is for the loud and unnecessary applause of his associates, he is contented to receive that applause for qualities or achievements of the pettiest description. His house—which he holds as a yearly tenant, and will probably leave before next quarter-day—commands an infinitely better prospect than that of Smith, and has full two feet six inches more frontage than that of Tomkins. He can play Malbrouk on his chin, or balance the bellows on his forehead; he is unrivalled in waistcoats, or he was the very

* i. e. Speaking in round numbers, and calling the year precisely 365 days.

first person who paid for entrance to the Zoological Gardens ; in short, he is something, has something, knows something, or can do something, which, according to his assertion, and according to his belief too,—for vanity is ever credulous,—no one else within the sphere of his acquaintance is, has, knows, or can do. All this is lamentable enough, even when the vain man piques himself only upon what is in itself merely petty, and in its influence upon society perfectly innocuous. This we have already admitted is very generally the case ; and when it is the case, the inquiry is principally confined to the vain man in his own proper person. His mind, bent solely upon trifles, becomes effeminated ; he is incapable alike of the high aspiration and of the high determination, without which no man ever yet succeeded, or ever can succeed, in any pursuit worthy of a man's time, or a man's devotion. His pursuits gradually become a second nature, and he who while young is very vain, is pretty sure when old to be very silly, very helpless, and very much despised.

If this were all the evil which vanity is capable of producing, the possibility, or, more properly speaking, the moral certainty, of vanity producing so much evil to the individual, would be a sufficient reason why every young man should be ever on the alert to discover any lurking tendency in his mind to a vice so contemptible in itself, and so injurious to its possessor, and resolute to crush it in the very germ. But far worse evils may result from it ; it may become, and it commonly does become, the parent and instigator of the foulest, the most disgraceful, and the most destructive crimes ! Probably many who have hitherto considered, with the majority of moral essayists, that vanity is rather contemptible than dangerous, will deem that, in speaking of it as the parent of *crime*, we have spoken somewhat too strongly and too severely. Let us see, then, how the case really stands.

One of the very worst "signs of the times" in this country is the extreme false meaning generally attached to the word *respectability*. We speak of a man as being *respectable*, not because he really has qualities, or has performed actions for which he is entitled to our respect ; but because his house is well appointed, and his person well clad. The upholsterer may still be unpaid, still the well-housed man is called respectable ; the tailor may have to arrest the well-dressed man, but as long as he is a well-dressed man, though he be a swindler in principle, and a prisoner in fact, he is still a *respectable* man, and that, too, in the vocabulary of people who are themselves so thoroughly high principled and honest, that rather than incur a debt beyond their means of payment, they would be unhoused in the depth of winter, and clad in fustian or sackcloth all the year round.

In a philological point of view this confusion of terms is very ludicrous ; but when we go further, and note the extensive and injurious effect which it has upon the morals of the great bulk of the people, it assumes an aspect infinitely nearer to the horrible than to the ludicrous. The indirect homage which we thus pay to wealth as the *τὸ καλόν*, the one good, wonderfully weakens the inclination of the mass of the people to the real goods—piety, honour, sobriety, professional skill, and intellectual culture. Sallust well and truly says, "Ubi divitiæ claræ habentur, ibi omnia bona vilia sunt,—fides, probitas, pudor." How, indeed, can it be otherwise ? If we have our smiles and homage for dishonesty, meanness, treachery, and folly, when he who is disgraced by them can dazzle us with the reality or the appearance of wealth, and have only scorn and frowns for honesty, high feeling, fidelity, and talent, because their

possessor is poor ; do we not, in fact, plainly give it as our opinion that wealth is the sole virtue, and that for wealth all *real* virtues should be promptly and entirely sacrificed ? Mere reflection might suffice to convince a people so generally thoughtful as we are, that the false meaning we attach to the word *respectability* is likely to produce a great and general deterioration of morals. But, unhappily, we are not confined to reasoning or to theoretic study for our proof—every day furnishes us with but too many practical instances. Our criminal records abound more and more, every new year, with cases in which criminals have become criminal solely from vanity, and a false notion of respectability. Servants of every description have become felons, and been doomed to the long, unvarying, and hopeless misery of the hulks, or the convict settlement, from their insane love of *appearing respectable*. A short time since, a pot-boy absconded with twenty pounds which his master had entrusted to him. When apprehended, he was dressed in a new suit of fashionable clothes. His own vanity, and the general homage so shamefully paid to the mere *appearance* of respectability, were too much for his weak principle. The pleasure of being (apparently) *respectable*, outweighed all sense of duty and all fear of punishment ; he became a felon rather than not dress like a gentleman ; and, very probably, during the short time he was swaggering about in the finery purchased with his master's money, he received the low bows and the smirking civilities of people who, had they met him in the garb proper to his real station in society, would have scarcely deigned to manifest their consciousness of his existence.

Society is greatly to be blamed for this palpable and ill-founded homage to the mere externals of respectability. Not only is it unjust, and therefore unwise in itself, but it is peculiarly calculated to tempt very vain people into the commission of crime for the sake of obtaining that manifestation of respect, which is, to the vain man, so much more precious than the real *title* to respect, which the wise and good man covets. *Cato malebat ESSE quam VIDERI bonum* ; but the vain man reverses the feeling, and would infinitely rather have the praise of one person, however bad or however silly, than *deserve*, without having it, the praise of all the good and wise of his time and country. This being so obviously true, how unwise is it to foster and stimulate the meanest of all vanities, "the vanity of dress !" Nay, how vast is the *evil* as well as the folly of doing so !

Though we have confined ourselves to one illustration of the evil effect of vanity in dress, we might multiply our examples even to filling an entire number of this work ; but upon that kind of vanity we have said enough to awaken attention, and the slightest attention will enable the inquiring reader to add illustrations to the necessarily brief argument we have set before him.

We have thus far shown that vanity, contemptible in itself, and injurious to him whom it governs, even when it regards only petty and ludicrous matters, may not unfrequently be the precursor of theft ; and that the vain man may, by circumstances acting upon his vanity, become a transported thief. But the evil does not terminate even here ; *vanity is sometimes powerful enough to make the vain man a murderer !* To make good this at first sight rather startling assertion, we might safely rely upon corollaries from what we have already established. We might point out the terrible truth, that a small crime is but too certain to lead to a greater one ; and that when vanity has so far worked upon the heart as to make a man a thief, it is quite within the range of possibility that circumstances connected with his theft may make him a murderer. Many, in fact, have

committed murder who have been resisted or detected in the robbery to which they, in the first instance, proposed to limit their wickedness; and many among them, if we may argue from the manner in which they have been proved to employ their ill-gotten booty, *have been led to the commission of the theft by vanity*. Remotely, therefore, though not proximately, these guilty persons *have been* uged by the vice of vanity—for we can never consent to consider it a mere weakness—to the commission of the most hateful of public crimes—*murder*!

But we need not thus closely limit our argument. All Europe has very recently been startled and shocked, and our common nature has been at once revolted and degraded, by an awful crime, committed, if not solely, yet certainly in chief from the promptings of excessive vanity: we allude to the horrible treason and murder committed in Paris by the vain miscreant Fieschi. In attempting to commit regicide, this villain swept out of mortal existence forty persons! All ages, all ranks, and both sexes, fell victims to the murderous fire of this ruffian's very truly styled "Infernal Machine!" What was his motive? However seemingly single and simple our actions may be, our motives are mostly, if not always, complex. Poverty, a disinclination to steady and useful labour, and a mingled impatience of privation and desire for sensual enjoyment, no doubt had their share in

producing the truculent and sanguinary *wish* for crime. But we have it from his own lips, that, even "at the eleventh hour," when the splendid *cortège*, and its thousands of agape and unsuspecting spectators, passed within range of his tremendous engine of destruction, all that was still left of humanity in his hardened and debased soul revolted from the vile crime he had previously determined to perpetrate. He saw his benefactor (M. L'Avocat) among the throng, and he half determined to turn from the evil deed. But VANITY overbore his better feeling—he had relented, indeed; but "what would his associates say?"* *That* decided him—he fired; and though the king did *not* fall, unarmed men, helpless women, veterans who had lived through the dread thunders of a hundred fights, lay gory and dead before the murderer Fieschi;—victims to his villany, as *that* was the creature and instrument of his vanity!

To extend this paper would be to encroach too far upon the limits of our present number; in a future paper we will analyse the character of Fieschi, as exhibited during his recent trial; and we both believe and hope, that, after we shall have done so, no one among our readers will think vanity a mere weakness, or a vice which a thinking person ought to allow for one hour to remain unchecked, either in his own mind or in that of any one with whom he is connected, or for whom he is anxious.

DEMOCRACY ILLUSTRATED, OR THE RISE AND FALL OF THE ANCIENT REPUBLICS.

No. I.—SPARTA. (Continued from p. 88.)

HISTORIANS are perfectly right in ascribing to luxury a vast and terrible power to deteriorate public spirit, and to sap the foundations of public liberty. But they speak, we think, too *generally*—they do not sufficiently *particularize*; they neglect to point out the gradations by which the mischief is wrought. Perhaps our meaning may be best illustrated by descending from national to individual instances. Nothing is more common than to hear the ruin of this or that individual ascribed to his fatal and infatuated indulgence in this or that vice. A, for instance, we say, would by this time be a man of large fortune but for his unfortunate propensity to the beastly habit of intoxication; and B owes the utter ruin in which he has involved both himself and his family, to his reckless and incurable passion for gaming. Both affirmations are true, *as far as they go*; but they are not the *whole* truth. The gaming and the intoxication are, indeed, the *first causes*—the *causa causarum*; but it is to the causes caused by them that the ruin is proximately and directly owing. A drunkard, for instance, *might* die "worth a plum," if drunkenness were his only vice. But drunkenness renders his intellect obtuse, and his body feeble and diseased; the tavern or the "gin palace"—that shame to our boasted march of intellect, and that especial shame to our "reformed parliament!"—have more fascination for him than the counter or the counting-house; he becomes indolent, forgetful, careless of pleasing his customers, wasteful in his own person, and destitute of the vigilance necessary to prevent his substance being still farther wasted by others. *These* are the causes which directly lead to bankruptcy, penury, the workhouse, or the unblest grave of the suicide.

It is perfectly true that, logically speaking, the *causa causarum* is the cause of this or that fatal effect. But in writing, whether history or biography, whether with respect to national or individual economy, it seems to us that far greater effect may be produced by tracing the effect fairly, and link by link, through all its proximate causes, than by

merely naming the remote cause, which is often so remote that the young and inexperienced reader, finding some difficulty in understanding *how* the given cause *can* have produced the given effect, is very apt to think lightly of the cause and of the writer's warnings against it.

The fatal departure from the wise simplicity and contempt of riches enjoined by the far-sighted Lycurgus, undoubtedly struck the first blow at the power, prosperity, and happiness of Sparta. But historians have too vaguely and too generally propounded this indisputable truth. The mere possession of gold and silver by the state, and for state purposes, was, *per se*, harmless enough. Nay, in the growing wealth and power of neighbouring states, we are not quite sure that Lycurgus himself might not have seen a sound reason for using as a *state weapon* that very wealth which he would sternly have denied to the use of individuals. But, unhappily, the very severity of the penalty denounced against private persons guilty of possessing the precious metals, gave to that possession a new and a doubly strong power of allurements; and this law, like all severe sumptuary laws, in all times and in all countries, fell by degrees into contempt and desuetude from the utter impossibility of enforcing it.

With the general possession of wealth came a general contempt for the simple fare and the simple and manly habits to which Sparta had so long been indebted for her greatness. Luxury effeminized those who could command it; and the desire for luxury made the poor corrupt and servile, contemptuous of honour, honesty, and independence, and ready to lend themselves to the darkest and to the basest designs, so that they could procure wealth by their participation in them. But even now, could Sparta have seen from the ranks of her effeminized and corrupt citizens a new Lycurgus arise, Sparta was not wholly destitute of the capacity for regeneration. The ancient division of the lands

* Almost his own words.

still remained intact. No one had as yet been wicked enough or base enough to propose the sale or mortgage of the land; and *the manner in which the land is held and used has an infinitely more powerful effect upon the prosperity of a nation than the kind and degree of its moveable and fluctuating property*; a truth of which politicians even of our own time appear to be very entirely and lamentably unconscious.

In the reign of Agis and Leonidas this last hope of Sparta was wilfully and sottishly abandoned; and, as if to show how close a connexion there is between private virtue or vice and public safety or ruin, it was from a private quarrel that this consummation of public destruction proceeded.

One of the Ephori, by name Epitadeus, quarrelled with his son; and in the fierce and insane desire to injure him, did not scruple to inflict an abundantly greater wrong upon his country, though as a citizen, and still farther as a magistrate, he was bound both by duty and by oath to prefer his country's interest and safety to every other earthly consideration. Resolving to deprive his son of his lands, Epitadeus proposed, and exerted all his official and personal interest to pass, a law by which the holders of land might, in modern phrase, *cut off the entail*. Now it was that wealth and luxury could exert a despotic power. The land became the property of the wealthy few; and with the land went political power—power which the corrupted and effeminated few took care to exert solely for what their narrow and short-sighted folly led them to suppose their peculiar interests.

Even now, greatly as the world has advanced in knowledge, political and moral, as well as scientific, it is but too rarely that we find men fully and wholesomely impressed with the great truth, that individuals have, in reality, *no* interest apart from the interests of society. The simplest actions of the simplest individuals have their direct or indirect influence upon the general weal; and he who acts dishonestly and tyrannically to serve his (seemingly) peculiar temporary interest, is surely, however slowly, injuring society and himself as a portion of it. Imperfectly as, even now, this is understood, and partially as it is acted upon, it was in the time we speak of utterly and universally disregarded by the degenerated Spartans. *Self* was the sole care; gratification of selfish and for the most part sensual desires the sole aim.

The land became the property of a few; usury and debt forged intolerable chains for the many; and by that inevitable reaction which forms the peculiar curse and appropriate punishment of wickedness and folly, the very monopoly of wealth became the immediate cause of ruin.

The abject misery of the many was sharpened and aggravated into a tenfold bitterness by contrast with the Sybarite luxury and overflowing riches of the few; and thus while the latter blindly prided themselves on their vast possessions, those possessions became insecure by the temptations they held out to the miserable condition and luxurious wishes of the former; of whom Plutarch says, *"they lived an idle life in the city, an indigent and abject herd, destitute alike of fortune and of employment; in their wars abroad, indolent and dispirited dastards; at home, ever ripe for insurrection, and catching greedily at every opportunity of embroiling affairs, in hope of such a change as might enable them to retrieve their fortunes."*

Human eloquence poured forth through whole quartos could speak nothing more corroborative of the truth, that even the wealth of individuals derives its real value from the sound moral and social condition of *all*, than is contained in the lines printed in italics.

The miseries of the great mass of the Spartan people at

length aroused the feelings of Agis III. This young prince saw the origin of those miseries in the departure of his compatriots from the wise laws of Lycurgus; and in a return, so far as the altered state of society would permit, to the laws so unwisely departed from, he saw the only hope of rendering the many prosperous and the few safe. But it happened to Agis, as, alas! it has but too often happened to those real patriots who love the people too well to flatter their follies or pander to their vices, that his efforts to serve and save his country brought about his own destruction. Though he manifested his sincerity by adopting the severe simplicity of dress and habits which he recommended to the adoption of others; and though both he and his wealthy female relations offered to make the most splendid sacrifices of property towards remedying the evils under which the mass of the people groaned; the wealthy, blind and deaf to all but their own passions and their own insane prejudices, opposed him, raised a faction against him, and finally *murdered* him who would have saved and served them.

From this time the history of Sparta is a history of folly, vice, and misery. Nothing could save a country armed against itself. It was in vain that fortune for a while smiled upon their arms, and laid their enemies suppliant at their feet. The canker-worm was deep buried in their constitution. Their enemy was in the heart of their own community; and after long years of unvaried misery at home, and alternate triumph and disgrace abroad, they were partly forced and partly cajoled into the Achæan league by Philopœmen, who at once abolished all that was yet in existence of the laws of Lycurgus, and thus effectually fitted Sparta to bow down her neck to the yoke of the stronger tyrant; a yoke which she never again shook off. Her sufferings produced that war which ended in the dissolution of the Achæan league; and *that* laid all Greece prostrate beneath the grasping and iron power of Rome.

Brief as this sketch has necessarily been made, we hope it suffices to show that individual virtue is necessary to national prosperity; and that national corruption is the sure road to national misery, terminating in national ruin.

HOW GREAT ARE THE POWERS OF MUSIC!

It is no fiction that "music hath charms to soothe the savage breast." All hearts pay homage to her power; and "the saint, the savage, and the sage," acknowledge their willing allegiance to her sway. Poetry has but endeavoured, by strong and well-adapted imagery, to represent her well-established empire over the human heart; for greater wonders than the building of the walls of Thebes can she effect by the magic of her tones. Yes, and those who have rendered us an account of Orpheus appear to have been better naturalists than was once supposed; since it is sufficiently attested, that beasts, as well as birds, and even insects, have, in many instances, been fascinated by the influence of her spell.

If, then, the universality of the power of music be unquestionable, if it appear that all animated nature bows down before her shrine, is it too much to solicit the attention of the naturalist to the subject?

But what shall we say of the effects which this all-pervading principle is capable of producing upon society? It is a principle that soothes the sorrows of the afflicted, and draws forth the tear of affection and of sympathy in their favour. It brings peace to the troubled mind, and, like "a good conscience," can shed a ray of consolation even through the darkness of "midnight." The touching strains

of former years, entwined as they are with all our finer feelings, restore to us the hearths of our fathers' halls, and cause the vivid joys of our childhood to cluster round our hearts, and the lucent recollections of our long-lost happiness once more to scintillate over the neglected waste of our remembrance. They place us again at our mother's knee, where, lifting up our hands as a guileless sacrifice, we first lisped forth our evening hymns, and put up our simple petitions to the heavenly Father for his blessing and protection. Even the victim of tyranny, while he treads the solitary wilds of Siberia, is warmed by the genial power of his patriotic airs; and the poor captive in his dungeon, while his memory hovers over his once happy home, and the friends of his youth, is cheered and consoled by the songs of his native land. With the romantic hills that stand forth fresh on the tablet of his memory, are associated those matchless strains, which he first heard among their wilds; and he proves that the cradles of the patriot and the minstrel are rocked together among the recesses of the sublime. And yet this principle, although immaculate in its own nature, although capable of pouring a balm upon the wounds of life, and of meliorating the condition of man, may be employed to stimulate the human breast to the desire of conquest, to lead on the charge of contending armies, and to increase the misery and destruction of our fellow-beings. It is a principle that, in the services of the temple, can elevate the mind to devotion; enjoined by the voice of inspiration, it is delegated with the power of sublimating the passions, and of lifting the soul to heaven; and yet, if perverted in its offices, may subserve the views of unholy ambition, or preside at the board of revelry and riot. Is it then too much to expect that giving a proper direction to a subject, capable of being instrumental, to so high degree, in the promotion of good or of evil, shall seem worthy the attention of the moralist and the Christian?

Again,—music is so directly capable of refining all our sensibilities, and of exerting so felicitous an influence upon society, that its cultivation may be considered as a social duty; for if any thing that can gladden the heart of innocence, and throw off the unhappy reserve and restraint but too conspicuous in social intercourse, can be so estimated, music undoubtedly can. The mind unbends, at its bidding, from that unnatural stiffness, so fatal to the society of the heart, and which the commercial occupations of the day have imposed upon it. Even the most unmusical people, one would suppose, must be sympathetically moved by the inspiring voice of music—(their own belief to the contrary notwithstanding;) for immediately on her tones being heard, you find them, simultaneously, commence talking on their highest pitch; and, in the plenitude of their enjoyment, endeavouring to vie with the dulcet strains in sharing the attention of the company.

And may we not also beg you to remember that music is particularly conducive to health? We have known physicians recommend to the family circle music and singing after dinner, as an efficient means of producing a pleasurable state of mind; and thereby agreeably, we presume, to the laws which regulate the nervous sympathy between the brain and the stomach, of promoting a healthful digestion. We know that literary men in Germany have recourse to music, not only as a recreation to the mind, but as restorative to the body; believing that it affects both the mental and physical powers, and mainly tends to obviate the prejudicial influence of sedentary application. We sincerely hope that the time is not distant when education, taken in its true and extensive acceptation, may become generally contributive to the vigour of both body and mind; and when, for

evidence on this subject, we may appeal to the practice and experience of literary men at home.

Vocal music is particularly useful. That sailors, to whose signal notes "a ship's company" are, amidst the roar of tempestuous elements, accustomed to "lift the anchor" and "hand the sails," have the soundest lungs and most powerful voices, is well known. And it seems now to be as generally conceded, that the proper exertion of the voice is of as great advantage in restoring, as in preserving the health and vigour of the lungs.

We are aware it has been said that none but persons with ample chests should sing. We apprehend, however, that the voice, like all other gifts of nature, will be improved by moderate use, as well as impaired by that which is unreasonable; and that the few instances in which children on their entering a choir, young ministers, town criers, auctioneers, &c., have had either their voices or their healths injured, have been entirely consequent upon over-exertion.

What would be but gentle exercise to one, might prove overwhelming fatigue to another. The singing therefore should be, in conformity to nature's general laws, proportioned to the strength, age, and state of health of the performer; and, with all, sparingly indulged in at first. The breath, too, should be so "managed," (to use a musical term,) as to prevent forced and unnatural respiration, and provide that the lungs shall not be exhausted upon a long word or note. We have known persons who, at the commencement, have experienced inconvenience, and even pain in singing; but who, on becoming accustomed to hold the head erect, to open the mouth well, to utter the words distinctly, to take and sustain the breath in a proper manner, "and to procure the voice from the chest," have been enabled to sing, not only with ease, but with pleasure.

ARTS.

THE arts may, perhaps, with propriety, be defined to mean, the alterations and improvements of the works of nature.

There is scarcely any state of human existence, even the most uncivilised, in which men do not practise some art for the improvement of their condition; they build habitations, make some kind of dress or ornament for their persons, form weapons for warfare or the destruction of their prey, construct canoes, and evince great art in ornamenting them with quaint carvings; and often show great skill, ingenuity, and imagination, in making and decorating the objects of their ignorant idolatry. But it is only among highly civilised people that the arts flourish in the greatest perfection. Riches introduce luxury, luxury encourages literature, and literature gives birth to taste—hence wants increase in proportion as they are gratified; and as there are great numbers always ready to exert their ingenuity in gratifying those wants, the productions of art are multiplied to an extent almost unlimited.

Arts are properly divided into *liberal* and *mechanical*. The LIBERAL ARTS are those which either afford agreeable amusement to the mind, or contribute to the elegances and enjoyments of life; and among them we must place the FINE ARTS—*poetry, painting, sculpture, gardening, and architecture*. These are called the FINE ARTS, because at the same time that they exercise and delight the mind, they gratify the superior senses of seeing and hearing. The liberal arts flourish most among a free people, who feel the security of their possessions in the independence they enjoy; while those whose possessions and lives are at the mercy of a tyrant, feel little

or no inclination to study or encourage them, because any display of wealth in patronizing the arts would most probably excite the cupidity of the reigning despot, and tempt him to appropriate it to his own use, even though he could not otherwise obtain possession than by basely sacrificing the life of the owner. Where riches, therefore, are so insecure, men avoid the display of them; and either privately gloat over their treasured hoards, without daring to use them, or indulge in voluptuousness and sensuality in the recesses of their habitations, whilst, to all outward seeming, they are poor and mean.

Wealth must combine with freedom in fostering the FINE ARTS. In *Lacedæmon*, which was as free as Athens, but poor, the arts were utterly unknown; but in Athens, which was rich, they flourished greatly. Switzerland is much celebrated for its love of liberty, but it is extremely poor, its inhabitants being compelled to toil for their daily bread, and consequently enjoying but little leisure for the cultivation of those arts which demand so much time and wealth to bring them to any thing like a degree of excellence.

Sometimes, however, it happens that excessive wealth is as great an enemy to the fine arts as poverty, because those who are born to great inheritances are commonly too indolent to devote much time to the cultivation of their minds, and will rather spend their time and money among jockeys, pugilists, and others, who will minister to their low propensities, than seek to acquire that pure and refined taste which delights in *painting, sculpture, music, architecture*, and other refined and intellectual gratifications. Thus do the higher ranks of society not only become debased in the very lowest degree, but the arts, which their wealth should support, are suffered to languish, not from any want of national talent, but merely because patrons are wanting to encourage and support them. Another great cause of the decline of the fine arts is the monstrous absurdity of esteeming that only to possess excellence which is ancient. This, however, is not so much the case now as it was formerly, when no paintings were esteemed worthy of being purchased by the great, excepting those of the *old masters*, and no statues found a place in their palaces and mansions except those which bore the stamp of antiquity; the consequence of which was the discouraging men of genius from attempting to rival those celebrated masters, knowing full well that their merits would be entirely overlooked, and their exertions utterly unrewarded. Now, however, while the *chefs-d'œuvre* of the *Italian, Flemish*, and other schools of antiquity, still maintain their interest, modern art is encouraged, and the painting and statues of our modern artists and sculptors are allowed to occupy the same apartment with those of Raphael, Michael Angelo, Titian, and the other most celebrated masters of the middle age.

The changes of religious opinion produce a powerful effect on the decline and advancement of the arts. While Greece and Rome worshipped a multitude of deities, and erected statues to them, sculpture flourished, and attained the highest degree of excellence. On the overthrow of paganism, and the establishment of the Greek and Roman churches, pictures were in great demand, and painters of great eminence appeared; but, since the spread of Protestantism, the arts have considerably declined, because the simplicity of the Protestant worship affords no encouragement to the genius of the artist.

Music is supposed to be far inferior, at present, to what it was among the ancients, in consequence, as it is said, of the invention of harmony, simple melody being considered by the advocates of this theory as alone capable of reaching the heart and exciting the passions, while harmony only pleases the

ear; and great wonders are related of the music of the Greeks, who knew nothing of this harmony: but we suspect that, were it possible for modern Europeans to listen to the music of Timotheus's yre, the only emotion it would produce would be contempt—so fastidious have we become by the progress of refinement.

The *mechanical arts* are those which relate wholly to the accommodation of the body, and are denominated TRADES and MANUFACTURES. Being in a great measure essential to the comfort of life, they naturally took precedence of those which relate merely to its elegancies and refinements. The building of convenient habitations occupied the attention of mankind long before the idea of rendering them magnificent and ornamental. The earth was cultivated for the sake of the plants and vegetables it afforded, long before ornamental gardening was thought of. In short, men looked to the supplying of their necessities before they began to administer to their enjoyments.

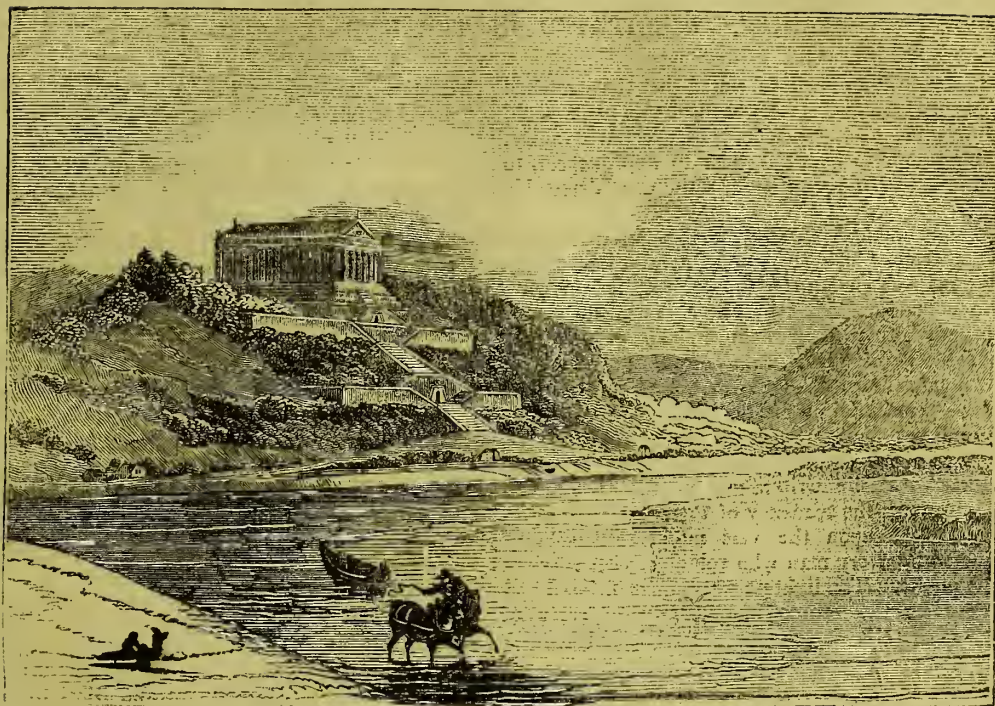
The mechanical arts, as we have shown, with regard to the liberal ones, suffer greatly from various circumstances, emanating from the bigotry and caprice of mankind. The partiality for old established customs, and the dislike of innovation, has heretofore been, even in this country, a great check to their improvement; while, at the present day, the sudden changes which frequently occur in the fashion of various articles of manufacture bring upon thousands the most appalling misery and wretchedness.

The arts are said to have originated in the East, and from thence passed successively to Egypt, Greece, and Rome. The discovery of Herculaneum and Pompeii affords us ample proof that the Romans were much better acquainted with some of them than we had supposed, it appearing that they were conversant with several which we thought to be of entirely modern invention. The manufacture of paper, the art of painting in oil, of printing both with types and by means of engraved plates, and the construction and use of the mariner's compass and of fire-arms, are decidedly of late origin; and so important are these inventions, that they have been the means of entirely changing the state of the whole civilized world.

By means of printing, knowledge is universally disseminated; the mariner's compass has brought us acquainted with the most remote countries of the globe; the use of fire-arms has changed the whole art of war, so as to render our success in battle no longer dependent on mere personal strength and prowess, but on a wise disposition of the troops, and on skilful manœuvres.

The application of steam to mining, machinery, &c. is exclusively of modern origin; clocks and watches were likewise unknown to the ancients. Water and wind-mills for grinding corn are by no means modern inventions; yet they were not used in Italy till the fourteenth century, nor in England until the sixteenth, mills worked by horses or by hand being those in common use.

FLOWERS.—All these elegant and delicate textured beings possess a mysterious life of their own, with feelings akin to ours. How the leaves fade away beneath the burning influence of the sun! How languishes the flower-bell after the refreshing dews of night! How proudly it shows itself to the rising day, adorned with pearls clearer than purest crystal; how elated it is when the wanton bee dares to suck its treasured sweets; how quickly it dies when torn from its native soil! Is there not here a human type? The meaning of flowers, how simple! How prophetic to the boy who inquires concerning the future in the star-flower; to the maiden who looks in the meadow for hope and love; to friends who place the wreath of innocence on the grave of the departed; to the but too few pious, who see in universal creation only the pages of a vast Bible!



THE TEMPLE OF WALHALLA

THE present Bavarian monarch, Luis, son of King Maximilian, was from his youth a great patron of the fine arts ; but architecture was his favourite study. The young prince formed one of the noblest designs ever conceived by any prince ; not the execution of enormous pyramids for ostentation or vain glory, nor an amphitheatre, for vulgar diversion,—no splendid palace of personal vanity, but a temple to immortalize the great men, who were not only an ornament to Bavaria, but who adorned the whole of Germany, placing in it their busts for eternal memory, and thus realizing the existence of the fabulous temple of Walhalla of Jupiter. The prince not only formed this plan and selected the site himself, but defrays the expenses out of his private purse. Therefore, he left Munich, in 1823, for Italy and Sicily, where he could gain experience, taking with him the renowned architect, Leon von Klenze. On his return, the prince commenced his favourite object, selected the spot, and fixed upon the plan and materials. A hill was preferred near to the village of Donanstanf, a league distant from Ratisbon, on the left bank of the Danube, in the centre of the kingdom of Bavaria, than which no spot could have been better appropriated. On the death of King Maximilian, in 1825, prince Luis ascended the throne, and hereupon gave orders to his architect, Klenze, to commence the structure according to his sovereign's own designs, and supplying from his own private quarries the necessary marble. The foundation stone was laid the 18th of October, 1830, in the presence of her Majesty the queen, with the different members of the house of the princes of Taxes, in the midst of an immense multitude, after an appropriate speech from the Minister of State, Edward von Schenk, who explained the motive of so vast and noble a structure. This temple is of white marble, and is approached by two immense flights of steps, branching on either side ; the style of the building is

Doric, and the portico consists of eight columns in front, and six inside : the interior of the structure has seventeen columns on each side, the dimension of the interior of Walhalla (like most Greek edifices, it is an oblong) is about 190 feet long, 54 wide, and 57 high.

As this work is but just commenced, we cannot give any precise details of it ; although we have presented our readers with an engraving of it. The sculptor, Schwanthaler, had but few parts executed ; but the total expense of this undertaking is calculated at 1,400,000*l.* and as it is defrayed privately by its munificent projector, it will take ten years or more before its completion.

The busts of renowned persons of both sexes will be deposited in Walhalla, appearing between the rows of beautiful red marble pillars, with white Ionic capitals.

Individuals belonging to all parts of Germany, of every public capacity, whether of State or the Church, on thrones or the defenders of their country, of science or of arts ; all seem to rest in King Luis's Walhalla as in the sanctuary of the dead.

POVERTY hath never so often been brought upon a nation by the unfruitfulness of the earth, by disasters of seas, and other human accidents, as by the avarice of the officers and favourites of princes.—*Drummond.*

TIME will shortly moulder the hand that is now writing, in the dust, and still the breast that now throbs at the reflection : but let not this be read as something that relates only to another, for a few years only can divide the 'eye' that is now reading, from the 'hand' that has written.—*Dr. Hawkesworth.*

VANITY, ILLUSTRATED IN THE LIFE OF FIESCHI.

IN our article on Vanity,* we stated that the wretched criminal whose name stands at the head of this page would furnish a new proof of the tendency of excessive vanity, when referring rather to *qualities* than to *appearances*, to lead the vain man to the commission of the most detestable crimes.

We are doubly anxious to show our readers that this is the case, from having just fallen upon a brief but singularly mischievous sentence upon the subject, in a weekly paper, whose conductors boast that its circulation is larger than that of any other paper extant. The sentence in question says—"Vanity is a *venial* error, for it mostly causes its own punishment." Strange logic! lying, theft, arson, murder—these, too, "mostly cause their own punishment;" and yet few persons, we trust, will be found hardy enough to speak of those atrocious crimes as being "venial errors." Public writers are but too little in the habit of weighing well the tendency of their assertions; too little do they reflect upon the vast moral responsibility which is incurred by every man who volunteers his services to instruct the public. The lightest word, once printed and circulated, may be the source immediately of error of thinking, and mediately, of the most terrible wickedness of action.

In the former article we have alluded to the power of vanity as the parent of crime; let us now look at the conduct of Fieschi,† and we shall see that his vanity was fatal to both his victims, himself, and his far less guilty accomplices.

Of that mere physical hardihood which is common to the great majority of healthy men, and which, possessed as it is by nearly all male animals, is in itself one of the least admirable of all qualities, though the ignorance of mankind has caused it to be valued at an infinitely higher rate than it deserves, Fieschi appears to have possessed a full share. In the earlier part of his life he served as a soldier, and there is abundant evidence that in that capacity he conducted himself bravely and actively; but those writers who have spoken of his *courage*, as though it were in some sort a palliative of his atrocious and cruel crimes, have made two very great mistakes. In the first place they have confounded physical hardihood—the hardihood of the pugilist and the bull-dog, with *moral courage*—the courage springing from reasoning and religious feeling; of this latter courage we shall presently show that the ruffian Fieschi was wholly destitute. In the second place, the writers, who have so unduly lauded this man's mere animal courage, forget that countless thousands of men, in all times and in all nations, have displayed even more than his animal courage, and have died *innocent of all or any of his atrocities*. What, then, has his courage to do with our estimate of his character? It was not his courage that prompted his hateful wickedness; nay, his courage, as we shall presently have occasion to point out, would not have enabled him to have executed the revolting crime he had undertaken, had it not been for the prompting and urging of his vanity.

After leaving the army, Fieschi appears to have led a dissolute life. He was averse to regular industry, and at the same time prone to those sensual indulgences to which no man can be addicted without injury to his purse as well as to his

character. Hanging loose upon the skirts of society, desirous to have a full share of indulgence in what his depraved taste called "pleasure," and yet too indolent to work, it was inevitable that he should from time to time be plunged into deep and squalid distress. On one occasion, if not oftener, this distress caused him to be guilty of theft. He was imprisoned; and when he left his prison, he was so far from having any inclination to turn away from his evil courses, and to embrace a life of humble but honourable industry, that we find him—the patriot, as he had subsequently the shameless effrontery to call himself,—trying might and main to obtain employment in the idle and in famous calling of a police spy. Foiled in this, he became suddenly indignant on behalf of *France*—that beautiful but most strangely perverse land, which, whether republic or monarchy, whether writhing beneath the sanguinary tyranny of a Robespierre, or growing in wealth and importance under the benevolent rule of a Louis XVIII., is never without a pretext for a plot, or without ruffians ready to commit treason in the name of humanity, and wholesale murder in the abused and desecrated name of liberty! Happy, happy, will it be for that country if her inhabitants—in so many other respects admirable—shall some day learn to look with due loathing upon the sanguinary *fierté* in which they now glory, and learn to feel the truth of those beautiful words of the apostle—"Where the spirit of God is there is liberty!"

Accident having made Fieschi known to a gallant and influential officer, Colonel L'Avocat, the kindness of the latter seems to have had some effect even upon the hardened and heartless disposition of the former, who, on many occasions, showed great zeal and intrepidity in attending upon the colonel, and carrying his orders into effect, when riots of a dangerous kind occurred. He attended the colonel, too, when the latter was dangerously ill; and he more than once warned him *against the designs of men who had proposed to assassinate him*. All these services Fieschi, both while in prison and when on his trial, chose to set down to the account of *grateful attachment*; and both in France and in England this hypocritical pretence has been allowed to pass uncontradicted even by those writers who have the most honourably distinguished themselves by denouncing to public detestation and disgust the vile crime which led Fieschi to the scaffold. Whether this hypocritical pretence of the utterly heartless murderer has been allowed to pass current on account of the carelessness of public writers, or on that of the shallowness of their metaphysics, signifies but little: it is a pretence which must be exposed; firstly, because no false gloss should be allowed, in however trifling a degree, to diminish the abhorrence such a ruffian as Fieschi ought to inspire; and, secondly, because the very conduct which he has thus been allowed, without contradiction, to attribute to a virtuous and hallowed feeling, *sprang entirely from vanity, and furnishes one of the strongest proofs of the mighty and unshared power of VANITY as his spring of conduct*.

It is one of the characteristics of excessive vanity to be impatient, to desire perpetually to hear the voice of praise. Whether it be the pettiest accomplishment or the most important quality by which the vain man is, or supposes himself to be distinguished from other men, he must perpetually be told of this quality or that accomplishment. Fieschi had hardihood and considerable sagacity; these qualities obtained him the praise of a brave and able gentleman: it

* See page 91.

† It may not be amiss (as we have heard even well-educated persons mispronounce the word) to say that the name is Fi-es-ki—not Fees-she. He was a Corsican; and his name is not French, but Italian.

was the *voice of praise* that Fieschi followed through the dangers of the *émeute*, and watched over by the bed of sickness. M. L'Avocat, the kindly and benevolent man,—M. L'Avocat, the benefactor, was never for one instant in Fieschi's thought; but he was devoted to M. L'Avocat, the accurate judge of courage and sagacity,—to M. L'Avocat, who discerned the courage and sagacity of Fieschi, and was not backward in bestowing his praises upon them!

We may be told that, however firm of our own belief in what we have advanced, assertion is no proof. Granted; proceed we therefore to furnish proof. Leaving till the proper time all remark on Fieschi's questions, put while on his trial, to M. L'Avocat, let us look how the case stands as to the greatest service the murderer ever rendered to M. L'Avocat,—we of course mean his warning that gentleman against the designs of those who intended to assassinate him. In this very circumstance—which the weakness or the indolence of public writers has caused them to let pass for virtue in Fieschi—we see the strongest of all the many proofs of his craving and dominant vanity, a vanity which no amount or intensity of applause could satiate.

How did Fieschi become possessed of his knowledge of the hatred borne by certain persons towards M. L'Avocat, of the causes of that hatred, and of the sanguinary designs with which that hatred inspired them? By his own actual confederacy with them in all their plotting, save that which was personally directed against M. L'Avocat! Now had his motive for warning M. L'Avocat against his enemies been gratitude, that gratitude would have impelled him still further. He would not merely have warned him—he would have armed him effectually; he would have disclosed to him the name, and the whereabouts of the conspirators against his life; and a party of *gens d'armes* would have made short work with the conspiracy, and at once have placed the colonel out of danger from the conspirators, by putting them on the shortest possible road for their most fitting destination—the galleys. But Fieschi could not spare admirers. The conspirators against the life of the colonel were as warm as the colonel himself in their admiration and their applause of the sole qualities upon which Fieschi prided himself. To send them to the galleys would at once, it is true, have put his patron and his liberal dispenser of praise out of danger; but then, where should we find such enthusiastic admirers and dispensers of praise when he should have sent these worthies to the galleys? Such was Fieschi's conduct; leagued with the conspirators, he would not allow them to cut off a man who praised him! wishing to save that man, in gratitude for praise to be bestowed,* he yet could not tell him so much as would cut off his other supply of praise!

Many of our readers will probably be induced to call to mind the somewhat (seemingly) close analogy between the conduct of Fieschi in warning Colonel L'Avocat and that of one of the accomplices of the ruffian Guido Vaux,† in warning the Lord Mounteagle; but, as this seeming analogy may have an injurious effect in causing an undeserved diminution of the detestation which truth and the best interests of society demand that Fieschi should be held in, we must take the liberty to point out a very essential difference between the two cases. The danger which threatened the Lord Mounteagle was a sole danger. Once warned against that, and attending to the warning, his danger was wholly and for ever at an end. The day, indeed, was fixed, upon which both Houses of Parliament

were to be blown up; but if Lord Mounteagle, acting upon the warning of his correspondent, chose to absent himself from his seat in Parliament, he was secure. Villain as the writer of this letter was in other respects, he was, as to Lord Mounteagle, a really grateful man. He fully warned him; he put it fully into his power to save himself; the danger was one—one warning was sufficient. But a very cursory examination of the conduct of Fieschi puts his, so called gratitude in a very different light. He warned the colonel of his danger; true, he repeatedly warned him; true, but in thus acting, he warned him only against one of many dangers. It was impossible for Fieschi to be certain that his colleagues, either from some unforeseen change of circumstances, or from some deep, though unexpressed suspicion of him, might not change their intention both as to the time and manner of their proposed attack upon the colonel. Had this occurred, it is clear that Fieschi's information would have been of but small avail to his *benefactor*, as, with a nauseous pertinacity of affectation, he constantly chose to style the colonel; but though, to the shrewd mind of Fieschi, practised as that mind was in all the minutia of deceit and intrigue, all this must have been abundantly evident—he preferred keeping his benefactor in perpetual danger to releasing him from it, by the facile and straight forward act of making him aware of the quarter from which that danger threatened him.

We trust that we have said enough to convince all thoughtful readers of this work, that what Fieschi attributed in his conduct towards Colonel L'Avocat, sprang, in fact, from vanity; that he derived pleasure from the praise of the colonel, which was sure to be repeated whenever he gave him a warning, and, at the same time, derived equal pleasure from the praise of the villainous colleagues, whose villany upon this single point he, in mere selfishness, traversed. Let us now look at him at the time when the treason he and his accomplices had so long contemplated was at length actually to be committed. They had praised him for his ingenuity in constructing the infernal machine; they had praised, by anticipation, his courage. The day at length arrived, his victims were before him. Even *he* felt the blood stand still in his veins; even *his* heart, for an instant, felt as though it had been smitten by a bolt of ice; but, in his own words, he thought of what his accomplices would say. Is not that the very phrase which the vain man uses to urge himself on to a folly which, for a time, he has discovered to be a folly? Vanity spoke, and the small still voice of conscience was hushed—the murderer fired: he could sin against God and man, but he could not resist the voice of vanity: he wished to be the admiration of his accomplices should he escape, and of the startled and marvelling nation if taken; and a sea of blood was to flow rather than his vanity should be disappointed.

The whole of the disgusting details of his trial present him in the same light—the mere puppet of his intense vanity. He was gazed upon with horror and loathing; he mistook them for wonder and applause. Attitudinizing, speechifying, trembling lest all eyes should for even an instant be withdrawn from him; pursuing his accomplices with the zeal of a blood-hound, in order that he might lose no single opportunity of being the lion of the time: making loathsome compliments to himself, he exhibited during the whole of the trial a vanity which would have been incomparably ludicrous had it not been, under the circumstances, unutterably horrible.

To quote from his rabid addresses during the trial, or from his braggant speeches during his imprisonment, would

* As, in Politics, a witty writer speaks of 'gratitude for favours to come.'

† Commonly called *Guy Fawkes*.

occupy more space than we can spare, and would, besides, be unfair towards our readers, inasmuch as the newspapers have given the details *usque ad nauseam*. But the more attentively those details shall be perused, the more convinced will the readers be of what we have asserted, viz. that vanity was the ruling feeling of Fieschi; and bearing this

in mind, they will, we trust, constantly remember, and steadily act upon our former assertions, that vanity is to be avoided and even when referring only to comparative trifles, is still farther to be dreaded and guarded against, on account of its power to impel the vain man to the most detestable crimes.

No. V.—SELF-INSTRUCTOR IN ASTRONOMY.

THE EARTH'S ANNUAL REVOLUTION.



THE zodiac is 'that imaginary space or zone which surrounds the heavens eight degrees north and south of the ecliptic, and in which the sun, moon, and planets, appear to travel, but which in reality is the path in which the earth travels. The revolution of the earth upon its axis, as we lately observed, is performed in twenty-four hours; but her revolution round the sun is made in 365 days 5 hours and 49 minutes. This latter motion is called her annual revolution, as that upon her axis is called her diurnal revolution.

When the sun appears to us to be in the sign Aries, it is because the earth is actually in the opposite part of the heavens, in the sign Libra, where we then look at the sun in the direction of Aries. The earth proceeding next through the signs Scorpio and Sagittarius, the sun gradually appears to move through Taurus and Gemini: this is the course of the earth in *spring*. Continuing her path through Capricornus, Aquarius, and Pisces, the sun's apparent progress is then through Cancer, Leo, and Virgo; which is the earth's path in *summer*. Again, proceeding onward, the earth passes through Aries, Taurus, and Gemini, while the sun appears to traverse the signs Libra, Scorpio, and Sagittarius: this is the earth's progress in *autumn*. Moving towards the completion of her orbit, the earth then passes through Cancer, Leo, and Virgo, to Libra, when the sun appears to pass through Capricornus, Aquarius, and Pisces, towards Aries; and here is completed our *winter*.

The seasons of the year are produced by this simple but beautiful contrivance, in conjunction with the circumstance of the poles of the earth being a little inclined to the plane of its orbit; this inclination is at an angle of $23^{\circ} 28'$, which is duly preserved throughout her entire revolution, the north pole being always pointed nearly to a fixed star of the second magnitude, called Stella Polaris, or Pole star. For a more detailed account of this annual motion, we must refer our readers to No. XVI. Vol. I. of this Work.

GARRULITY, OR EGOTISM.

As there may be much talk where there is little sense, and, as like shallow streams that babble over their pebble-paved paths, the torrent of words may be more noisy than notable, so vanity prompts young men to be loquacious, and many a one would blush at fifty to hear repeated his own rigmarole of twenty-five; a little hint on this subject may not be useless or unseasonable at this time of intellectual improvement and self-importance. Young men should know that, however well read or highly-instructed in general literature, it is one thing to know and another thing to make rational and sensible deductions from what they have learned or been taught; and those who speak without deliberation or without aim, will often shoot wide of the mark, and make an explosion void of execution, or have the discharge recoil upon themselves, to the destruction of their reputation for sound sense and discretion. One great failing of most very talkative young men is, the propensity they have to praise themselves, and which they often do under the disguise of modesty, or in some indirect manner. These egotists generally censure and criticise other persons with great severity, by which they would have you infer how vastly superior they are in their

talents and information; or if they praise any body, or any thing, the eulogium ends with some connexion to themselves. An illustration of this observation was given by a youth of considerable intelligence and acquirements. In a conversation about national genius and character, this young gentleman lavished the highest encomiums on the natives of Ireland,—all the learning of Greece, the patriotism of Rome, and the virtue of angels, belonged to them as a natural inheritance, which nothing could alienate; at last, having exhausted the whole stock of panegyric, he modestly confessed, that, though born in England, he owned himself of Irish extraction!

This self-sufficiency is a weakness in some, but in others it is downright arrogance; in both cases it is disgusting, and should be most cautiously avoided: all people are disposed to esteem humble merit, but few are satisfied to acknowledge that which is presumptuous. Another foolish method of self-praise is an affectation of deep humility, with a view to enhance some supposed superiority; such persons are in the habit of continually interpolating their discourses with such expressions as—"In my humble opinion," "According to

my weak ideas," "Not that I pretend to much learning," &c. though at the same time they intend to surprise their auditors with a display of talent and information; this is a sort of magic-lantern delusion, they first darken the prospect, and then throw out all the light they can to delineate the dancing figures that are to radiate in the shades of sophistry with which they intend to deceive the mind. The best answer to such wily egotists is to beg of them not to acknowledge their folly before they begin to attempt a display; for a sure way to expose a fool is to set him to babbling, and he needs not to tell you of it beforehand. Some vain orators are fond of these introductory flourishes and preparatives:—"They wish it had fallen into more able hands than theirs;" "they are sensible of their inability, but they rely on the indulgence of their hearers," &c. By such useless parade and sycophancy, they are indeed drawing largely upon the indulgence of their auditors before they have any assets of patience to answer the demand; but this feigned humility is drawn out like leaf gold, to gild over and cover a broad space of concealed conceitedness. Another class of egotists are more confident, and perhaps more honest; they have the letter *I* continually in their mouths; this prime personal pronoun serves them for a standard in all their comparisons. "I say," "I do," "I know," &c. are dogma of unquestionable authority—with them the *ipse dixit* is a conclusive argument; and even men of great ability will sometimes unguardedly fall into this error. The late Thomas Lord Erskine, Lord High Chancellor of England, when at the bar in his early years, was so much addicted to this species of egotism, that he acquired thereby the appellation of *Tommy Ego*, yet no man ever shone more in a court of law as a distinguished and powerful orator; he was the very Cicero of the English bar, and in truth it is said that the Roman orator had the same failing; but it is a failing, and may subject even splendid talents to occasional derision. In a cause which Mr. Erskine had to plead he frequently alluded to some evidence of a witness which he designated as the *most positive*: the opposing counsel in reply remarked that his learned friend had two more *positive* witnesses, namely, *I* and *me*, neither of whom he hoped the jury would regard, as their evidence was very suspicious, and that perhaps the *trio* were of equal importance, notwithstanding their *positiveness*. This species of egotism indicates a haughty disposition, or it displays that kind of blind vanity which cannot see its own fallibility, and therefore becomes the more exposed and vulnerable as it is less guarded or disguised.

Flippancy and heat in argument often betray young men into great improprieties, by shutting out reason, and talking instead of considering; and in committing their thoughts to perusal by writing in a *gallop*, without regard to obstacles that lie in the way; Cicero was thirty years of age before he completely overcame this involuntary yet almost irresistible error. The most fluent speech requires the most discreet direction; a fleet racer and a fleet tongue should be kept in the course, or their speed may carry them away from the goal, and disappoint them of the prize. The same thing may be said of a flying pen; rapidity is often a random celerity, that carries the author far wide, or beyond his intention.

The younger *Pliny* has given a good example in his practice, and the best advice in his precepts. "I omit," says he, "no way or method that may seem proper for correction; and, first, I take a strict view of what I have written, and consider thoroughly of the whole piece. In the next place, I read it over to two or three friends, and soon after send it to others, for the benefit of their observations. If I

am in any doubt concerning their criticisms, I take in the assistance of one or two beside myself, to judge and debate the matter. Last of all, I recite before a greater number; and this is the time that I furnish myself with the severest emendations." *Pliny* is an example of modesty united with brilliant intelligence; and though his caution might be inconvenient at this day, yet a regard to his character might afford some useful reflections to modern aspirants.

In speaking, the same caution is required as in writing, if we would wish to sustain the character of rational beings; and it is better to let deliberation run to the utmost than to let disquisition get any way in advance, for, as Cicero says in his *Offices*, it is the property of a fool to say *non putarem*.* Every wise man should think before he speaks; the only difference between idle-talking and rhodomontade in writing is, that the former may be forgotten, but the latter stands on record, and is either mischievous or ridiculous, and frequently both.

There is another kind of garrulity, which consists in defaming and slandering absent persons, and exposing the failings of friends and acquaintances, and in unning over a history of their transactions and conduct; the object of which is to show how much superior the narrator is to any of those foibles that he observes in others. This kind of gambol of the tongue generally concludes by desiring that what has been communicated may not be repeated, though perhaps it has been told with the same request twenty times before to twenty or a hundred other persons. If the recital has been inflicted on a sensible man the injunction to secrecy is useless, for he will not have attended to the twaddle, and will not think it worth while to remember one word of the story; and if told to another babbler, it is vain to admonish him,—it would be as wise to expect the retention of water that should be poured into a sieve.

If young persons would aim at wisdom and knowledge, they must imitate the disciples of Aristotle, and listen long before they presume to rank among the Peripatetics;† they should not begin to talk before they have acquired the philosophy of thinking, and when they do talk, it should not be for vain glory or vanity, but with a view to unfold something useful or instructive; not to gratify a silly desire of superiority, a disposition to garrulity or a fondness for egotism, but to reciprocate hearing and speaking, so as to inform and be informed with mutual candour and liberality.

Another kind of egotism is pedantry, or the affectation of superior learning and classical knowledge. We may sometimes meet with persons who never discuss any topic in an ordinary or plain manner; if they would quote Aristotle, they must call him the Stagirite, Virgil, the Mantuan Bard, Cicero must be denominated *Tully*, and in like manner of other ancient poets, philosophers, and orators, as if it were beneath them to use the names by which those distinguished men are commonly known. A conceited coxcomb, in a dispute with a plain-spoken man of moderate erudition, called Virgil his friend *Polydore*, to which the other replied, that his inclination might lead him to *adore Polly*, but he should admire Virgil only. There are some of those would-be-thought *literatores*, who have some scraps of Greek and Latin, that they are continually repeating on all occasions of controversy, by which, when likely to be defeated, they throw dust in the eyes of their opponents, and so escape discomfiture. This, however, is no proof of the *interiores*

* *Non putarem*, I could not think, or imagine, or it did not appear.

† Peripatetics, a sect of philosophers whose scholars were not allowed to discuss on subjects of reason and knowledge till they had attained a due course of experience.

et reconditæ literæ,* but, on the contrary, it shows how loosely their learning hangs about them, like the lion's skin on the jackass, which they flutter and shake to terrify those whom they dread.

Let young men avoid this species of pedantic garrulity—they may meet with antagonists who can strip them of their covering, and exhibit them in *status quo, absque pellis leonis*.† If they are provoked to call in aid the doctor's of the dead languages, that will justify an appeal to their opinions; but otherwise such recourse appears like a disposition to display learning, rather than to make a rational use of it.

The last species of egotism we shall mention is the pretending to be familiar with great men and persons of distinction, of whom some vain persons will speak as if they were their equals or intimate acquaintances, though entirely unknown to them, calling them *Tom, Dick, Jack, or Will*, though they may be poets, men of distinguished genius, or exalted rank; by this kind of vanity they think to elevate themselves in the estimation of strangers, and carry a sort of supercilious superiority. A boaster of this description pretended to a familiarity with the friends of a noble marquis, and spoke of his sons by the abbreviated names just mentioned. The household steward being applied to by one who often heard the gasconade of the man, his name was mentioned, with a view to influence the servant in behalf of the applicant. "I assure you," said he, "that I can be recommended by Mr. ———, who is well acquainted with the family." "That I do not doubt," said the steward; "he must have a knowledge of the family, for he used to black shoes and assist in the kitchen, when his mother was a scullion to our cook." The son of a scullion, who had risen above his origin, had he been modest enough to avoid egotism, might have held his station with some degree of dignity, but having assumed an altitude from which detection cast him suddenly down, his abasement became truly ludicrous; and he who would have acknowledged his merit for the talent and industry by which he had advanced himself, now despised him for his pomposity and vain pretensions.

Howsoever learned or talented a young man may be, he cannot long be esteemed without candour and modesty, and in doubtful cases he should not be positive; the coxcomb, the pedant, and the boaster, are contemptible characters when detected and exposed, and it often happens that by long indulgence those errors become incorrigible failings.

OF NATIONALITIES.

(Continued from Vol. III. page 446.)

ALL other circumstances being the same, that nation will be the most enlightened, virtuous, and prosperous, in which knowledge is the most perfectly and generally diffused. Natives of the self-same country, nay even of the self-same village, are uniformly found to be superior or inferior to each other in the exact proportion in which they are more or less educated than their fellows. We might perhaps go farther, and say, that the general diffusion of knowledge will render a nation which is so happy as to be distinguished by it, vastly superior to another which has every physical advantage over it, but whose population is in general ignorant.

Italy, the land and the burial-place of those who were formerly the great and glorious masters of the then known world, is incomparably inferior to Scotland and England, which, even in the time of Domitian, were the abodes of men little superior to savages either in attainments, possessions, or mode of living. In addition to the more luxurious nature of their soil, which, as was shown in the preceding

section, is exceedingly unfavourable to individual industry, and consequently to national virtue and prosperity, the Italians are injured by their superstition, which absolutely enjoins ignorance upon them, and puts the means of moral and scientific knowledge out of their reach. A comparison fairly instituted between the English and the Italians, or between the latter people and the Scotch, will forcibly argue the effect produced upon a nation, as to its wealth and importance, by the general diffusion of useful knowledge, moral and scientific. Nor is this influence inferior upon the moral character and exterior deportment of a nation. We may remark here, again, that even in individuals resident in the same nation, and in the same town or village, a marked and important difference is observable between the educated and the ignorant. We always find that the former avail themselves to the utmost extent of all internal and artificial advantages which are presented to them, and are patient and moral even amidst privations and embarrassments; while the latter squander or neglect whatever they possess from nature or art, and are excited to tumult or plunder by the mere approach of temporary and partial privation. Whatever influences individuals influences nations in the same mode, and in like proportion; and in order to form a tolerably correct estimate of the character and morals of a nation, we have an infallible guide, if we can attain to what extent and in what kind knowledge is diffused among its population.

The next greatly influential cause of the character of a nation is the amount of its population with reference to the extent of its territory. Where a vast extent of country is inhabited by a population of comparatively trivial number, and which is scattered in inconsiderable societies over the whole extent of the country, it is in vain to hope or look for any great scientific attainments, or any considerable refinement of manners. Intercourse between a people thus scattered is too difficult to be either general or frequent; and as a people thus situated are prevented, in a great measure, from availing themselves of man's grand and beneficent means of improvement, social and scientific cooperation, the arts and sciences are either wholly uncultivated, or are at best at a very low ebb. The former is generally the case when an extensive country, in addition to being thinly peopled, is so sterile as to yield nourishment to man only in return for excessive labour. Siberia is a country of this description. To introduce the arts and sciences into it with any good effect, it would be necessary to introduce an emigrant population into it at least twenty times as numerous as that which it now contains, and furnished with the most complete agricultural implements, and with the highest agricultural skill. But though a sterile land is doubly disadvantageous to a scanty population, even the more fertile and genial spots of the earth, if thinly peopled, are always inhabited by a population less eminent in the arts and sciences than some dense populations. Irrefragable proof of this is furnished by the inferiority of the United States to Great Britain, in the general possession of science. Those states have made rapid strides in every thing since they were first colonised by Great Britain; but they are even yet far behind us in science. This remark does not apply to their chief cities, such as New York, Philadelphia, and Boston, but to the western districts, which, being very thinly populated, are removed from the influence of the improvement, moral and scientific, made in the more populous parts.

If, as is undeniable, a very scanty population is unfavourable to the march of moral and scientific improvement, as regards the mass of the people, it is no less true that a very dense population is fatal to the interests, virtue, and character, of the greater number of individuals composing it, and is exceedingly prejudicial to the health of every one of them.

* Deep learning, not superficial, internal and sound.

† In their state, without the lion's skin.

It has been emphatically remarked by an eminent medical author, that great cities are the graves of the population. The very best police cannot prevent crime and dissipation, or enforce strict and universal cleanliness, in such cities as London, Paris, and Edinburgh. Favourable to trade and the acquisition of great wealth, cities such as these are in the same proportion unfavourable to cleanliness, morality, and health. Those who are wealthy set an evil example of luxurious living and careless indolence; while those of the vast population to whom they can give employment, lavish their injuriously high wages upon spirituous liquors, and thus destroy their health and deteriorate their morals; and those unfortunate beings who cannot obtain employment, or those contemptible beings who are too idle to accept of it when it is offered to them, live by beggary or outrage, and die in the streets or in the mansions erected by charity for the reception of misery and disease. Let any one compare the condition of the lower orders in town and country, and he will be fully persuaded of the justice of this representation. As to the general influence of extreme density of population upon the morals and condition of a people, we need only compare France and the United States. In the latter, want is unknown to those who are willing to labour, and vice is not only less heinous in kind, but incomparably less frequent of occurrence also. In the former, on the other hand, rags and vice abound in all parts; and the public documents of Paris put it beyond all manner of question or dispute that one-third of the entire population die in the public hospitals, and that nearly the same proportion* are buried at the public expense. Such abundant and horrid vice and misery as are to be met with in every street and lane in London and Paris are utterly unknown, except by scarcely credited description,

in the United States of America. These states furnished us with an illustration of the disadvantages, moral and scientific, of a thinly populated country. That illustration we drew from their western and least populous districts. From the more densely populated districts of the Northern United States we may draw a similar illustration of the advantages enjoyed by a population dense without being crowded. In these states the people are nowhere collected together in the huge and demoralising masses such as form the population of our largest European cities; while they are at the same time located within such a distance of each other as to render frequent communication a matter of but small expense, and no kind of difficulty. There are some large cities which serve as central points of communication, and which are therefore highly favourable to the commercial and scientific improvement of the people; but even these cities are well, not crowdedly, populated, while the great mass of the people dwell in small villages, or detached farms around them. Every village has its place of worship, its school, and its library, and each is in constant communication with the grand centres of government, commerce, and information. It is next to impossible for a people thus situated not to be prosperous, wealthy, moral, and great; and it may be laid down as a maxim, that a population which is not crowded together, and which, yet, has easy means of communication between all its members and parts, and affords facilities for the constant attendance of the whole population upon divine service on every Sabbath-day, is that state of population which is the most conducive at once to the happiness, morality, and enjoyment of every one of its members, and to the greatness, wealth, influence, and stability of the state.

(To be continued.)

NO. I.—ON POPULAR SUPERSTITIONS,

AND THEIR BANEFUL INFLUENCE ON CHILDREN.

THERE are few, if any, weaknesses which are at once so generally felt and so generally denied as superstition. The young peasant and the aged philosopher will equally assure you that they are not troubled with superstitious fears, and will equally give a practical contradiction to that assertion the first time they meet with an occurrence which they cannot account for, and which, therefore, they consider and pronounce supernatural.

The existence of a very general tendency towards, at the least, occasional fits of superstitious terror, we need not any further insist upon, for the experience of every one of our readers will afford an ample commentary on what we have said already upon that point. Our chief purpose is to assign the cause of this general tendency towards what both religion and reason ought to guard us against; nor is that cause far to seek—it is compounded of ignorance and habit.

It is in childhood, sometimes in our very earliest infancy, that our first superstitious terror is impressed. In order to make the unruly or unwilling child submit to their directions, servants but too commonly appeal to the child's terrors. He is threatened with some imaginary bugbear; his threateners skilfully counterfeit a terror similar to that which it is their wish to impress; the child's young and guileless heart sinks within him, and the falsehood of an ignorant and gabbling domes-

tic has laid the foundation for a life-long folly—a folly which reason indeed shall often blush for, but which it will be all but miraculous if imagination ever fairly and entirely escapes from.

In most cases, no doubt, the first false impression is made upon the mind of the child at an age so early that the effect only remains upon his mind in after years; and this fact it is, added to the mysterious connexion between that which is spiritual and that which is bodily in us, which renders superstitious fear a folly so very universal and so very generally incurable—incurable, that is to say, by all ordinary means.

Unfortunately, the means by which well-meaning and hard-headed persons too commonly endeavour to combat this painful folly, is just as powerless towards really curing it as it is powerful in making the victim of that folly affect a wisdom which he has not courage enough even to aim at:—we of course allude to the very common and very mistaken practice of endeavouring to joke and banter the superstitious out of their folly. Experience would tell us, even if reason did not, that ridicule is in this case quite ineffectual towards removing the folly we deplore. Let us, then, endeavour to perform this truly desirable service by a more direct and probably efficient mean—by that of REASON.

And, first, let us impress upon parents and tutors the vast and unspeakable importance of their carefully protecting youth from the evil influence of ignorant or wicked domestics. Much and strongly as we are opposed to corporeal punishment, we would rather that children were subjected even to

* Here we, however, must except those who are delivered over to the surgeons to aid in the advancement of anatomical skill.

that, than to the soul-debasing and enervating influence of superstitious terror. To doubt that every parent who may read this work is really and zealously anxious for the welfare of his children, would be to offer a most unpardonable and unjustifiable insult to one of the noblest feelings of our common nature, and one for which our compatriots are singularly remarkable. But it is not sufficient of love—we must love *wisely*. Would you have fire from ice, or ice from the burning sands of the dreary and terrible Sahara? not a whit less reasonable would that be than to expect a firm and masculine character in the man whose childhood has been exposed to the withering and effeminating influence of credulous, superstitious servants, who are ever more ready to frighten the young master or miss with threats of supernatural evils than to watch by them, or attend to their wants, in defiance of the attractions of the gossip of the kitchen, or of the last brainless ballad or “dying speech and confession” of some fellow never born, for some murder never committed.

Parents and tutors, then, should make it an invariable practice, on engaging their servants, to warn them against presuming, under any circumstances, to endeavour to alarm the children with threats of supernatural visitation; and if, as is but too likely to be the case, an ignorant, prejudiced, or obstinate domestic, ventures to contravene a command at once so just, so merciful, and so wise, no consideration should prevent the instant discharge of the offender. And the discharge of him or of her should be accompanied by a grave and stern rebuke, given in the presence of the child, upon whose credulity he or she has been ignorant or insolent enough to endeavour to practise. The child should be

reasoned with, not bantered. The goodness of God exemplified through all nature should be insisted upon, and vividly called into view; and the child should be warned that, in giving way to superstitious terror, he is, in effect, questioning the power or the mercy of that God, by whose power we have our existence, and to whose goodness we owe our preservation and all the great and innumerable delights and conveniences with which God has surrounded us.

When it is considered that the impressions made upon the mind in youth are those which are to give a mental colouring to the whole of life, surely no sensible parent will think any trouble too great to prevent superstition from being permanently ingrafted upon the easily impressible mind of his child. It is in youth, as all tutors and most parents are well aware, that scholastic knowledge can be best impressed upon the mind; and the very same mental and physical phenomena which render the youthful mind docile and impressible as to scholastic knowledge, render it also impressible and credulous as to superstition, *when that is told but not contradicted*; but *when* the contradiction is given, and supported too by those arguments which the Scriptures furnish, and which are at once so dear and so conclusive to the natural piety of uncorrupted youth, superstition will be found as easily refuted as any other falsehood whatever.

Unfortunately many, too many, have heard the figments of ignorant superstition, who had *not* the happiness of having them promptly and effectually contradicted. Should any such be among our readers, the anecdotes we shall weave into a future paper will be useful—as, in any case, we trust that they will be found amusing.

VARIETIES OF THE HUMAN SPECIES.

To descant on the advantages to be derived from a study of each variety of the human race, would be a useless task; such an infinity of general information so obviously results from a knowledge of the various habits, manners, and peculiarities of man, scattered as he is over the earth's surface, as to make it unnecessary for us to point out the special advantages attainable by such a study.

The character of man is materially influenced by climate and the means of existence within his reach, be it limited or extensive: thus the majority of those who inhabit the tropics, enervated by the continual presence and powerful rays of the sun, are of an indolent temperament; while, by a wise provision of Providence, the same cause to which that indolence is referable lessens the necessity of labour, as, with little comparative cultivation, it warms into life and verdure those vegetable productions of nature, which afford bountiful supplies for animal sustenance. On the contrary, the natives of arctic regions, being deprived of such advantages of genial warmth and fertility, can only support life by the most incessant labour or vigorous activity, and are, consequently, a bold, hardy, indefatigable race. Hence it will be found, that in the proportions of climate between these extremes, the habits and characteristics of men are modified by the advantages or exigencies of their “local habitation.”

Cuvier, in his “Animal Kingdom,” divides mankind into three distinct classes: the whites, who belong to the European and most highly civilized nations; yellow people, who inhabit Japan, China, and their neighbourhoods; and Ethiopian, or black men, who are confined to the territories south of Mount Atlas.

These classes are subdivided into other tribes; the most

interesting of which we intend to give some account of. In a former number was presented an illustrated essay on the Hottentots; we now proceed to take notice of their neighbours, the natives of Caffraria, or Caffre people.

NO. I.—CAFFRES.

It is not a little singular that the word *Caffre*,* like that of Hottentot, is entirely unknown in the language of the people to which it is applied. The probable derivation of the term is from the Arabic *Kafir*, and is one of reproach, signifying *infidel*, used by the natives of south-eastern Africa, to designate those nations who had not embraced the Mahomedan faith.

The Caffres are a tall, athletic, and handsome race of men, with features often approaching to the European and Asiatic model; neither are their mental attributes so inferior to more northern nations as other of the negro tribes. Most travellers who have penetrated into their country agree, that they are capable of high intellectual cultivation. Their religion is much less irrational than that of many barbarous nations. The Caffres believe in a Supreme Being, whom they worship, with other minor spirits; this circumstance may be with justice referred to, as a cause for their superior kind-heartedness and hospitality, and the many excellences of their general manners. They are, however, addicted to a belief in witchcraft and sorcery, which occasionally betrays them into cruelties revolting to human nature.

The women are sprightly, good-humoured, and active; have fine eyes, and white well-set teeth; are also modest

* According to Barrow, in their language, as in that of the Chinese, there is no letter *r*. The word *Caffre* is also written *Caffer* and *Cafir*.

PINNOCK'S
GUIDE TO KNOWLEDGE.

No. CLXXIII.]

SATURDAY, MAY 16, 1835.

PRICE
ONE PENNY



THE INDIAN RHINOCEROS.


(*Rhinoceros Indicus.*)

THE marshy swamps and jungles in the neighbourhood of the great rivers of India are the principal haunts of this celebrated animal. It is also found in the borders of China, and in the Islands of Java and Sumatra. In these places he may still be seen by the venturesome traveller, under precisely the same circumstances as those which surrounded him in the days of Job, who has thus described his appearance, and that of his natural habitation. "He eateth grass like an ox; his strength is in his loins; his bones are like bars of iron. He is the chief of the ways of God. He lieth under the shady trees, in the covert of the reeds and fens. The shady trees cover him with their shadow, the willows of the brook compass him about, *his nose pierceth through snares.*"

Naturalists describe two species, the Indian and the African; and two varieties of the Indian species, the Sumatran and the Javan. The Indian is distinguished from the African species by having *one* horn on the nose,

and a *folded* skin; while the latter has *two* horns, and a *smooth* skin. In the following account, we shall not relate any thing particularly of the varieties, as they differ only in some slight zoological characters from the species.

The one-horned or Asiatic rhinoceros is a very massive and robust looking animal, but it does not convey those notions of unwieldy weight which a sight of the elephant never fails to inspire; for, owing to the great elasticity of its joints, with a structure which imparts considerable freedom of motion to the legs, it is enabled to move its bulky body with ease and even with elegance. The limbs are wielded by muscles of enormous power, which, from their necessarily great size, give a round and fat appearance to the body. Its bones are large, dense, and arranged with marvellous skill, in reference to the heavy strains which the weight of the animal calls them to bear. This is particularly observable in the form of the back, and



the suspension of the widely-spreading ribs. The back bone, like the catenary chains of a suspension bridge, sweeps with a graceful curve from the haunch bones to those of the shoulder, which, to continue the image, might severally be regarded as two solid piers. The head is not so large, nor the neck so short, as they have been commonly represented, but bear a due proportion to the bulk of the body. The belly is of immense capacity, and hangs low; the legs are short, thick, and strong; the feet broad, spongy, and divided into three hoofs, of which the central one is largest. Its height is about five feet and a half; length, about ten feet; girth, nine feet. The whole animal is clothed with a skin of surprising thickness and density, destitute of hair, but covered more or less with hard horny warts, which, together with its great thickness and strength, make it as invulnerable to the attacks of either spear or bullet, as the iron studded-doors of our feudal castles. Covered with this impenetrable hide, the animal could not have performed the slightest movement, but would have remained "hide-bound," and rigid as the moveless marble; but the all-wise CREATOR, foreseeing this consequence, has, in a manner no less singular than ingenious, plaited the skin into rolling folds, in all those places where the flexure of the body or limbs would have been

impeded, and has thereby given to this mighty creature all the easy mobility of its feline neighbours. The colour of the skin, which, from the dirt with which it is covered, can rarely be observed, appears to be a dark purplish grey.

The eyes are small, with a swinish expression, and placed much lower down than is usual among animals, being about midway between the ears and nostrils. This deviation from the common order of creation is beautifully explained, when we consider that, had they been placed in the usual situation, the forehead, which is very ample, projects so much, that they would not have possessed more than half the range of vision which they at present enjoy. The ears are long, tapering, with an easy motion, in any direction. This would indicate considerable acuteness of hearing, or it may perhaps serve as a compensation for any deadening of the sense, which the thickness of the skin on the head, by suffocating the auditory tremours, is certainly calculated to produce. The nostrils are situated on the sides of the snout; but from the habits and necessities of the animal, we should not conjecture its power of smelling to be very strong. Its sense of feeling may, or may not, possess the usual susceptibility. It has been usual, in consideration of the thickness of his coat

to regard it as of a very limited character; but as the reason upon which that conclusion proceeds is obviously unsound, and as the analogy of nature is against it, we are disposed to believe that the animal enjoys that faculty over its entire surface with as much keenness, perhaps, as its more lightly clad associates. Let the reader close his eyes, and touch his finger nails, and then the skin of his finger, with the point of a penknife, and he will be as perfectly sensible of the touch in one case as in the other; or let him touch his teeth and his tongue, and the same result will follow. We argue, then, that although the hide of the rhinoceros may be impervious to human weapons, it is yet sensible of the slightest impression which a waving rush or falling shower may produce. It is not the thickness of the skin, but the multitude of the superficial nerves, that should be considered. But, beyond controversy, one organ possesses the sense of feeling in an extraordinary degree: we allude to the upper lip, which is prolonged in the manner of a tapir's proboscis, and can be pushed forward to a distance of seven or eight inches from the teeth. With this instrument the animal is enabled to discriminate substances, as a blind man does with the tips of his fingers; and to pick up the smallest portion of food, as well as to break off the twigs of those trees upon the leaves of which it feeds. The form, which it has been the fashion to consider a greater curiosity than almost any of the zoological wonders by which we are surrounded, is the horn upon the snout. This weapon, in a full grown animal, is of a sharply conical form, about eight inches high and five broad at the base. It was once described as a process from the nasal bones, but it is now well ascertained to be an appendage only of the skin, and not at all of an osseous composition. The best notion we can give of its structure is to say, that, on being split, it tears into threads like whalebone, and appears to be a bundle of stiff hairs firmly adhering together, and forming, by their compaction, a solid and bone-like horn. Its use is primarily that of an offensive weapon, and renders the animal perfectly invincible:—with this instrument, he will in close combat rip up an offending elephant, and crush him by his weight in a few minutes. The lion and the tiger are also conquered with the same certainty and dispatch. It serves further as an instrument for procuring food; by its means the roots of many favourite plants become accessible.

Such is the *outside* of the rhinoceros. Indolent and peaceable in his habits, fearless of enemies, surrounded by the exuberant abundance of an Indian jungle, and naturally of a solitary disposition, he spends a long life of unadventurous tranquillity. His couch is found beneath the shade of the graceful bamboo; his bath is sought for in those sweet lakes which catch the melting snows of the Himalaya; and his grave is often spread in the cane-brakes which fringe the margin of the Ganges or the Burrampooter. But the quietude of his repose, like the calmness of the ocean, is sometimes roused into foaming madness. The growl of a lion, or the report of a musket, will fill him with dire and indistinguishable vengeance. In such a fit, he rushes at every living object; but, as he pursues a straightforward course, his attacks are easily avoided.

The noble adult animal at the Regent's-park Gardens, and the smaller one at the Surrey Gardens, are commonly of gentle and docile habits, and make themselves very sociable with the visitors.

The early history of the rhinoceros is thus stated in

the *Zoological Magazine*.—"The first rhinoceros of which any mention is made in ancient history was that which appeared at the celebrated festival of Ptolemy Philadelphus, and which was made to march the last of all the strange animals exhibited at that epoch, as being apparently the most curious and rare. It was brought from Ethiopia. The first which appeared in Europe graced the triumphs and games of Pompey. Pliny states that this animal had but one horn, and that number was the most common. Augustus caused two to be slain together, with a hippopotamus, when he triumphed after the death of Cleopatra, and these also are described as having each but one horn. Strabo very exactly describes a one-horned rhinoceros which he saw at Alexandria, and mentions the folds of its skin. But Pausanias gives a detailed account of the position of the two horns on a species having that number, which he terms the Ethiopian bull. Of this latter kind, two appeared at Rome under Domitian, and were engraved on some of the medals of that emperor: these occasioned some of the epigrams of Martial, which modern commentators, from ignorance of the species with two horns, found so much difficulty in comprehending. The emperors Antoninus, Heliogabalus, and Gordian, severally exhibited the rhinoceros; and Cosmus expressly speaks of the Ethiopian species as having two horns. There is abundant evidence, therefore, that the ancients possessed a degree of knowledge of these animals of which the moderns were for a long period destitute."

The modern ignorance which is here mentioned, may be traced to that period of intellectual and moral darkness which followed the destruction of the Roman empire, and which spread its chilling adumbrations over all the nations of Christendom. When, however, the Cape of Good Hope had been doubled by the Portuguese, and a way thus opened to the vast empire of Hindostan, the long lost one-horned rhinoceros was rediscovered; and in 1513, a living one was sent to Emmanuel, king of Portugal, of which a portrait was engraved by Albert Durer. In 1685, the first rhinoceros was brought to England; and since that time, at distant intervals, several others have been exhibited.

The hide of the rhinoceros is used for a variety of purposes, among which the most curious is, perhaps, that to which it is put by our cotton manufacturers. It is the only substance known that perfectly answers the purpose of knocking the shuttle of the power-loom backwards and forwards; all others speedily wear out with the repeated blows of the shuttle point, and are also deficient in elasticity. The Indian warriors set a high value upon shields covered with the skin. The horns are made into drinking goblets, and are sometimes thought worthy of being set in gold and silver. They are superstitiously believed to discover any poisonous fluids which may be put into them by causing them to effervesce; and are, therefore, considered to be very appropriate presents to the despotic rajahs of the country. We need not say that this is fabulous.

We have only now, in conclusion, to look for a moment at a conjecture which forces itself upon the mind, while we contemplate the strange form and endowments of this singular being. What is the ultimate end of its existence? and how may this be discovered from a consideration of its form and habits? The answer seems to us to be quite obvious. The rhinoceros is a vegetable feeder, and it appears to be sent to keep the prolific powers of tropical

vegetation in check, in places where, by its decay, it might generate noxious vapours, which even now are too often fatal to human existence. Accordingly, this creature has a bulk beyond that of all other animals, and an appetite of all-consuming character. But this great vegetable feeder was to pursue his useful labours in the midst of a host of carnivorous animals, with the lion and tiger at their head. How was this difficulty to be met? Long fighting teeth and claws would not have agreed with his herbivorous structure and prodigious weight; accordingly he is covered with a hide which defies the fangs of his most hungry opponents; and has a sharp destructive horn placed upon his snout, *and upon his alone*, that he may be able to quiet his adversaries with a speed which his enormous weight makes necessary. But all this is so obvious, that a child may see it; it is, at best, mere surface knowledge—a *minute* hand which points to Him “whose ways are past finding out.”

THE MICROSCOPE.—No. I.

How sweet to muse upon His skill display'd
 Infinite skill! in all that he has made:
 To trace, in Nature's most minute design,
 The signature and stamp of Power Divine!
 Contrivance intricate, express'd with ease,
 Where unassisted sight no beauty sees;
 The shapely limb, and lubricated joint,
 Within the small dimensions of a point.
 Muscle and nerve miraculously spun,
 His mighty work, who speaks, and it is done.
 Th' invisible in things scarce seen reveal'd;
 To whom an atom is an ample field.

COWPER.

THE whole system of Nature is a vast elaborate museum, arranged with perfect skill, and affording to the intellectual mind, by the contemplation, unbounded pleasure and unparalleled admiration. Every object in existence, by the inconceivable power of that great Being

‘Who filled the universe with life,’

is possessed with capabilities to perform peculiar functions, which are necessary for its existence and well-being. Each animal is provided with sagacity and instinct,—to each is assigned its peculiar element; and in each are limbs, joints, bones, muscles, nerves, and vessels, which unite with such perfect harmony, that each animal, howsoever large, and each animalcule, howsoever small, can perform its different motions in the manner best adapted to its peculiar modes of existence, and to the circumstances wherein it is placed. “What an amazing structure of parts, fitted to strain the particles imbibed, and admit and percolate atoms so different in form and size! Of the same common earth, how varied and innumerable the beings formed, each differing in taste, colour, smell, and every other property! How wonderfully potent that art, which varies the different animals in their flesh in all its sensible qualities, though formed by the separation of parts of the same common food! In all this, the Creator's power is present and active; clothing the fields with verdure, elevating the trees of the forest, and congregating the lowing herds and bleating flocks; guiding the plumous and aerial inhabitants, the minutest insect, and the noxious reptile. He forms their bodies, incomparable in their kind, and endows every object with instincts most astonishing and indescribable.” But of all this immensity and diversity of life, there is one class of beings, by far the most numerous upon the face of the globe, and

which, though small, taken individually, and indeed oftentimes invisible to the naked eye, yet, collectively, is a mass of organized matter, so vast as to be superior in bulk to that in any other department of the animal kingdom;—this class is the *insect*, the knowledge of which, by the inventions of man, has been augmented to an extent almost incredible. The *microscope*, an optical instrument, is that valuable invention, which opens to our limited vision countless myriads of living creatures, each enjoying such perfect organization, that, when examined, displays a structure so complicated and inexplicable, as not only surpasses our conceptions, but requires our unhesitating acknowledgment of the omnipotent wisdom of a great and divine Creator. “It leads to the discovery of a thousand wonders in the works of his hand who created ourselves, as well as the objects of our admiration; it improves the faculties, exalts the comprehension, and multiplies the inlets to happiness; is a new source of praise to him to whom all we pay is nothing of what we owe; and, while it pleases the imagination with the unbounded treasures it offers to the view, it tends to make the whole life one continued act of admiration.”

The *microscope* is supposed to have been invented about the year 1621, but by whom it is not precisely known, though it is usually attributed to the skill of a Dutchman named Drebell. Its history, like that of nations and arts, has had its brilliant periods, in which it has shone with uncommon splendour, and been cultivated with extraordinary ardour; these have been succeeded by intervals marked with no discovery, and in which the science seemed to fade away, or, at least, lie dormant, till some favourable circumstance—the discovery of a new object, or some new improvement in the instruments of observation,—awakened the attention of the curious, and animated their researches. Thus, soon after the invention of the microscope, the field it presented to observation was cultivated by men of the first rank in science, who enriched almost every branch of natural history by the discoveries they made with this instrument. There is, indeed, scarcely any object so inconsiderable, that has not something to invite the eye of curiosity to examine it, nor is there any which, when properly examined, will not amply repay the trouble of investigation.

The use of the microscope is for viewing minute objects, which become apparently magnified, because the instrument brings them nearer than is done with the naked eye. Of these instruments, there are many kinds, which vary in their structure according to the fancy of the optician; but there are only three great and important distinctions, viz. the *single*, the *compound refracting*, and the *reflecting* microscopes, the construction and use of all of which it is our intention to describe in a series of future papers, together with the important and interesting discoveries that have been made by them.

MINERALOGY.

PART III.

IN the former papers we attempted to shew that mineral bodies were divided into earths, alkalies, acids, metals, and combustibles; and that minerals were either simple or compound,—*simple*, when consisting of a single earth or metal,—*compound*, when constituted of more than one substance. In fact, for the purposes of our

inquiries, the most obviously convenient arrangement is that in which we purpose to class them, placing the simple bodies first in order, and then the compounds arising from the various combinations of the former.

We, then, first offer some observations in reference to the several *simple* or *elementary substances*, and in order to have their distinctive characters and properties, we must resort to the aids of chemical science; for chemistry (as a science) is so intimately connected with mineralogy, and tends so much to elucidate it, that we should fail in any attempt to make the *latter* intelligible, were we to neglect the aid which the *former* offers. But, prior to stating the result of any two or more of these mineral bases, when in a state of combination forming a *compound mineral* body, we shall have to call the student's attention to the laws of combination and aggregation, and thus trace our way onward to the theories of *crystallization*.

Our notice of the elementary bodies, non-metallic and metallic, must, however, be necessarily short, being intended to serve only as an introduction to the more careful study of the minerals formed by their combination; as well as to some of the subjects which will be brought under the reader's notice in subsequent papers. Those points which relate more particularly to the chemical science, as connected with mineralogy, are not compatible with our plan. On these latter topics, the chemical treatises of Berzelius, Thompson, and Turner, will afford all the information desired.

On referring to our first paper (p. 46,) it will be observed, that oxygen, hydrogen, water, chlorine, fluorine, nitrogen, and carbon, were ranked among the elements, or accessory constituents of mineral bodies; and in the second paper, (p. 62,) they were subdivided into two classes, viz. *simple electro-negative bodies*, and *simple electro-positive bodies*. The first class embraces *Oxygen, Chlorine, Fluorine, Iodine, and Bromine*; and under the second, are ranked *Hydrogen, Carbon, Sulphur, Phosphorus, Boron, Nitrogen, Selenium, and the Metals*.

Of the above, several possess certain properties in common, though they all differ from one another in certain subordinate particulars, under ordinary circumstances. Some of them exist as solids, but some of the more important, such as oxygen, hydrogen, &c. occur in a gaseous form; and one or two of them, bromine, &c. as fluids. Some of them, as far as we at present know, are apparently of little use, whilst others are necessary to the present order of creation, and the existence of man. Some of the metallic bases (silicium, calcium, and aluminium) exist in such quantities in a state of combination, as to form a large portion of the globe we inhabit; whilst others can be discovered only by the aid of chemistry. Some are deleterious, or destructive of life, both animal and vegetable; whilst, without the existence of others, created beings would probably become extinct, and the universe a general void.

THE SIMPLE ELECTRO-NEGATIVE BODIES.

OXYGEN.—This is one of the few elementary substances which occur naturally in the gaseous form, and constitutes about $\frac{1}{5}$ of common air. It was first discovered by Priestley in 1774, who named it *dephlogisticated air*. It is the *empyreal air* of the Swedish chemist, Scheele, and the *vital air* of Condorcet, a French chemist. Its present name was given by Lavoisier, another chemist of the French school.

From its proneness to enter into combination with other substances, it is constantly operating upon and modifying even the most simple substances. The art of combination is, in this case, termed *oxidation*, and the substances so operated on are said to be *oxidized*. The phenomena of oxidation are variable, sometimes occurring with great rapidity, and at others very slowly, as is exemplified in the rusting of iron, when exposed to a moist temperature.

As before observed, it enters freely into combination with various mineral bodies, forming, in fact, 50 per cent. of silix or flint, 47 of alumine, 28 of lime, 40 of magnesia, 17 of potash, 25 of soda, and about 88 of water. It forms a compound part in various proportions of the several ores of iron termed oxydulated iron, and oxides of iron, and of the oxides of lead, copper, antimony, arsenic, bismuth, chrome, manganese, molybdena, tin, ungsten, zinc, &c.

But, as an essential element of certain acids, it constitutes a more important ingredient in the formation of various rocks. It enters, in fact, into the composition of nearly half the crust of our globe, for it is believed that limestone rocks alone form $\frac{1}{4}$ of the whole series of rocks, and the proportion in which it enters into those is shown by the following table—

Limestone is composed of	56 Lime	{ Lime contains Carbonic Acid contains	{ 72 Calcium. 28 Oxygen. 72 Oxygen. 28 Carbon.
	44 Carbonic Acid		

Oxygen also forms an average of nearly 50 per cent. in argillaceous and silicious rocks, which are even more abundant than limestone; so that it may, in truth, be considered as the most widely diffused of all the elementary substances which enter into the composition of the subjects of the mineral kingdom.

CHLORINE is not found occurring naturally in a gaseous form, though it exists in abundance in a state of combination, as, for instance, in common rock salt, in which it is combined with sodium in the proportion of 60 per cent. The muriatic acid, which consists of equal volumes of chlorine and hydrogen gases, enters into the composition of the earthy minerals called *sodalite*, the *muriate of ammonia*, and the *polyhallite*. In combination with lead, mercury, and silver, it forms the *murietes* of those metals, and a trace of it is found in some of the phosphates and arseniates of lead. It occurs also in the rare mineral called *pyrosmalite*, or *native muriate of iron*.

FLUORINE is a rare elementary substance, and occurs principally in a state of combination with lime, making a fluuate of lime. In a pure state, it is exceedingly deleterious, and its corrosive power on glass is well known. Fluor spar consists of about $\frac{1}{3}$ of fluoric acid, and $\frac{2}{3}$ of lime; but whether the compound exists as *fluuate of lime*, (by which name it is generally known,) or *fluoride of calcium*, is not settled. In the *cryolite* from Greenland, it is found in nearly the same proportion, and also occurs in the Saxon topaz, and the *pycnite* or *schorlaceous beryl*. It has not been found mineralizing any metal except cerium, forming the *fluuate of cerium*.

BROMINE and **IODINE** are found principally in sea water, and in marine productions, existing only in minute proportion, and always in a state of combination. Bromine exists, under ordinary circumstances, as a deep-coloured red fluid, with an offensive odour; but iodine is a crystallized solid, volatile at a slight increase of temperature, and giving a violet-coloured vapour. Their respective

connexion with the mineral kingdom is very slight. The next class to be noticed is that of the—

SIMPLE ELECTRO-POSITIVE BODIES.

HYDROGEN.—This, in its elementary form, exists as an exceedingly inflammable gas, and is the lightest body known. It was formerly called "*inflammable air*," from its combustibility, and *phlogiston*, from the supposition that it was the matter of heat; but its present name, derived from two Greek words, signifying "water," and "to generate," is now generally adopted. Mr. Cavendish first pointed out, in 1766, its leading properties. Hydrogen forms 11 per cent. of water, and is one of the elements of *ammonia*, and of the *fluoric* and *muratic* acids. It is found in combination with sulphur, forming sulphuretted hydrogen; and has been discovered in the earthy minerals called *haiyne* or *latialite*, the *swinestone* or *stinkstone*, which is a carbonate of lime abundant in some districts, and so named from the odour it gives out on being rubbed or struck. Water, of which hydrogen forms so large a proportion, is a very powerful agent, partly arising from the extensive range of its own affinity, and partly from the nature of its elements. Hydrogen is found combined with several of the alkalies, as well as the acids, and with the salts which contain water of crystallization. These are termed hydrates, as the "*hydrate of magnesia*," &c.

CARBON.—The pure inflammable principle, which is the characteristic ingredient of all kinds of charcoal, whether formed from wood, bones, or other sources, is termed carbon. In coke it is in a very impure state. In plumbago, (improperly called black lead,) the carbon is supposed to be in combination with a small quantity of iron. When obtained from spirits of wine, it is almost quite pure; but it is in the diamond that we *alone* find it in a crystalline and *perfectly* pure state. Carbon exists in large quantities both in the animal and vegetable kingdoms, and more especially in the shape of coal. In combination with oxygen, it forms carbonic acid, which was first discovered in 1757 by Dr. Black. This acid, in unison with lime, constitutes common chalk and limestone. It is now ascertained beyond dispute, that there is no difference between pure charcoal and the diamond, the quantity of carbon in equal weights of diamond and charcoal being precisely the same. The only chemical difference arises from impure charcoal containing a little hydrogen or water, which the diamond is free from; and it is in this respect, and in the arrangement of its particles in a state of crystallization, that the diamond differs from charcoal. Carbon forms the base of the combustible minerals, such as *bitumen*, *amber*, &c. In *semi-opal*, it is found in the proportion of 1 per cent. to 85 of *silex*. In the *hepatite*, or fetid sulphate of barytes, it is only traced by analysis, and is found by the same means in some ores of manganese. Its connexion with carbonic acid, and in that form entering into combination with lime, has been before shewn under the head of Oxygen.

SULPHUR exists naturally in an elementary state, and in large quantities, in the mineral kingdom, particularly in the neighbourhood of volcanoes. It is found massive and crystallized, and enters largely into combination with various metals, such as *silver*, *copper*, *lead*, *antimony*, *iron*, *manganese*, *mercury*, &c. forming what are called the *sulphurets* of those metals.

(To be continued.)

VARIETIES.

MOONLIGHT.—That the lunar rays have a peculiar and unsalutary influence on the animal frame, appears to have been actually experienced by some of our countrymen. Other nations declare the same. . . . Men on board a ship, while lying in the moonlight with their faces exposed to the beams, often have their muscles spasmodically distorted, and their mouths drawn awry; others have been so injured in their sight, as to lose it several months. Fish hung up all night in the light of the moon, when eaten next day, has occasioned violent sickness and excruciating pains.—*Montgom. Travels of Tyerman and Bennett*. . . . The Baptist missionaries mention, that he who has slept in the moonlight is heavy when he awakes, and as if deprived of his senses. This corresponds with what Plutarch notices:—"Every body knows that those who sleep abroad under the influence of the moon, are not easily waked, but seem stupid and senseless." . . . The peculiar effects of the lunar rays have been so often observed in mental derangement, that this malady has been named *lunacy*, from them; and medical men, experienced in such cases, have assured me that in many there is a visible excitement at the changes of this luminary.—*Sharon Turner*.

GROWTH OF PLANTS AND FLOWERS.—Plants grow most in the night, and in cloudy weather; at noon all increase is suspended. Between morning and noon, and noon and evening, it is but small. But flowers advance more in the day, and especially in the meridian light and heat.—*Betwist's Manual*.

HEIGHT OF HERBACEOUS PLANTS.—It is true that, on our present earth, we find the moderate herbaceous plants of our temperate climate to attain extraordinary magnitude in the Torrid Zone. . . . The plants of the three families of the ferns, the clubmoss, and the horsetails, acquire always a size so much the larger as the climate in which they grow is hotter. They are no where so large as in the regions which are both hot and wet, as those of equinoctial America, and the isles of the Asian Archipelago.—*Bull Univ*. . . . Many of our voyagers and travellers have remarked this circumstance in the Polynesian seas, ferns assuming the size and character of trees. . . . Mr. Head, in his Journey through the Pampas, mentions plains of thistles ten feet high. Mr. Beaumont, in his Travels in Buenos Ayres, speaks also of forests of *thistles*, like underwood, used for fuel. We find *clover* growing so high, that men and cattle passing through cannot see each other. . . . Captain Beechy says of the ruins of the ancient Ptolometa, "The greater part of the town was thickly overgrown with wild marygolds and camomile to the height of four or five feet."—*Travels in N. Africa*.

HEALTH OF FISHES.—Lord Bacon says, "Most of the disorders incident to mankind arise from the changes of the atmosphere; but *fishes* reside in an element little subject to change. Theirs is an uniform existence. Their movements are without effort, and their life without labour. How long a fish continues to live is not ascertained; perhaps the life of man would not be long enough to measure that of the smallest."

ACTION OF FROST ON FISH.—The vital principle in *fish* can survive the action of frost. Those which were caught by Captain Franklin's party, in Winter Lake, froze as they were taken out of the nets, and became in a short time a solid mass of ice. But if, in this completely frozen state, they were thawed before the fire, they recovered their animation. This was particularly the case with a carp, which recovered so far as to leap about with some vigour after it had been frozen for thirty-six hours.

VEGETATION.—Most vegetables have an upright body, with vessels ascending and communicating with each other, as in us, but sap instead of blood; with woody fibres, instead of bone; with pith, instead of brain or nerve; with bark or rind, instead of skin or hide. Their leaves imbibe air, as we breathe it, and also light and moisture; and, in their continual motion, answer the purposes of our respiration and exercise. They also imbibe and expire an aerial fluid, as we do, though with this difference, that they emit oxygen gas under the influence of the solar rays, while animals absorb and retain it. They require food as we do, but their roots are their mouths.—*Sharon Turner*.

THE HISTORY AND DESCRIPTION OF THE BELL.

(Continued from p. 176.)

IN 1684, Abraham Rudhall, of Gloucester, brought the art of bell-founding to great perfection. His descendants in succession continued the business, and, by a list published by them, it appears that, at Lady-day, 1774, the family, in peals and odd bells, had cast to the amount of 3594. The peals of St. Dunstan's-in-the-East, and St. Bride's, London, and St. Martin's-in-the-Fields, Westminster, are in the number.

The *Passing BELL* was anciently rung for two purposes; one, to bespeak the prayers of the minister and all good Christians for a soul just departing; the other, to drive away the evil spirits who were supposed to wait about the house, ready to seize their prey, or to molest and terrify the soul in its passage. By the ringing of this bell, for Durandus tells us evil spirits are much afraid of bells, they were thought to be kept aloof; and the soul, like a hunted hare, gained the start, or had what is by sportsmen called law. Hence, perhaps, exclusive of the additional labour, was occasioned the high price demanded for tolling the greatest bell in the church. This dislike of spirits to bells is mentioned in the Golden Legend, by W. de Worde. "It is said, the evil spirytes that ben in the region of the ayre, doute moche when they here the belles rongen; and this is the cause why the bells ben rongen whan it thondrath, and whan grete tempeste and outrages of weather happen, to the end that the fiends and wycked spirytes should be abashed and flee, and cease of the movynge of tempeste." Lobineau observes, that the custom of ringing bells at the approach of thunder is of some antiquity, but that the design was not so much to shake the air and to dissipate the thunder, as to call the people to church, to pray that the parish might be preserved from disasters.

Legends concerning BELLS, as might be expected, are endless. The bells at Canterbury are said to have rung of themselves on the murder of Thomas à Beckett; but the influence of bells as exorcists has occasionally failed. The History and Antiquities of Shrewsbury, by Phillips, contains the following item:—"This yere, 1533, upon twelffe daye in Shrewsbury, the dyvyll appearyd in Saint Alkmonds church there, when the priest was at high masse, with great tempeste and darkness, so that as he passyd through the church, he mounted up the steeple in the sayde church, teryng the wires of the seid clocke, and put the print of hys clawes upon the 4th bell, and took one of the pinnacles away with hym; and for the tyme stayed all the bells in the churches, within the seid towne, that they could neither toll nor ringe." It is clear that this is simply the reference of a thunder storm to diabolical agency. We are told of a bell of St. David, which cured the king of Dublin of a mortal disease by applying it to his cheek. This was preserved in the church of Glaswn, in Radnorshire. It was portable, and endowed with great virtue. Geraldus Cambrensis says, that "a certain woman secretly conveyed this bell to her husband, who was confined in the castle of Raidergwy near Warthrenia, which Rhys, son of Gruffydd, had lately built for the purpose of his deliverance. The keeper of the castle not only refused to liberate him for this consideration, but seized and detained the bell; and in the same night, by divine vengeance, the whole town, except the wall on which the bell hang, was consumed by fire." A

similar bell, called Bangu, was kept in all Welsh churches during popish times. On the day of a funeral, the sexton took it to the house of the deceased. When the procession began, a psalm was sung, and the bellman sounded the bangu in a solemn manner, till the corpse arrived at the church. Within the memory of living persons this custom is said to have prevailed in Wales. We must mention yet one more marvellous bell in Ireland, which, unless it were tied fast every night, used to wander far from home into another church! We read also of a comet, which in the time of Pope Calixtus III. cast upon the Turks all the mischief which it threatened, in consequence of the ringing of bells, by order of the pontiff, precisely at noon.

We may finally observe (with Stavely, on Churches,) that anciently, and sometimes before the above specified offices, an extraordinary and dreadful use was also made of bells, and that was the cursing by bell, book, and candle, "the manner whereof," he adds, "I hope will not be altogether impertinent here to relate, out of an ancient festival, and the articles of the general great curse found at Canterbury, A.D. 1562. It was solemnly thundered out once in every quarter: 'the fyrst Sonday of Advent, at the comyng of our Lord Jhesu Cryst: the fyrst Sonday of Lenten; the Sonday in the Feste of the Trynyte: and Sonday within the Qrtas (octaves) of the blessed Vyr-gin our Lady St. Mary.' At which action the prelate stands in the pulpit, in his Aulbe, the cross being lifted up before him, and the candles lighted on both sides of it, and begins thus, 'By authority, God, Fader, Son, and Holy Ghost, and the glorious Moder and Mayden, our Lady St. Mary, and the blessed Apostles, Peter and Paul, and all Apostles, Martyrs, Confessors, Vyrgynes, and the Hallows of God; All those byn accursed that purchases writts, or letters of any leud court, or to let the processe of the law of holy church of causes, that longen skilfully to christen court, the which should not be demed by none other law: And all that maliciously bereaven holy chirch of her right, or maken holy chirch lay fee, that is hallow-ed and blessed. And also all thos that for malyce, or wrath of parson, vicare, or priest, or of any other, or for wrongfull covetyse of himself, withholden rightful tyths and offerings, rents or mortuaries, from her own parish church, and by way of covetyse, fals lyche taking to God the worse, and to himself the better, or else torn him into an other than him oweth. For all chrysten men and women been hard bound, on pain of deadly sin, not on-lyche by ordinance of man, but both in the ould law, and also in the new law, for to pay trulyche to God and holy chirch the tyth part of all manner of encrease, that they winnen trulyche by the grace of God, both with her travell, and also with her craftes, whatsoe they be truly gotten.' And then concludes all, with the curse itselfe thus: 'And now by authoritie aforesaid, we denounce all thos accursyd, that are so founden guliie, and all thos that maintaine hem in her sins, or gyven hem hereto, eihier help or counsell, so they be departed froe God and all holi chirch: and that they have noe part of the pas-syon of our Lord Jhesu Cryst, ne of noe sacraments, ne noe part of the prayers among christen folk: But that they be accursed of God, and of the chirch, froe the sole of her foot to the crown of her hede, sleaping and waking, sitting and standing, and in all her words, and in all her works; but if they have no grace of God to amend them here in this lyfe, for to dwell in the pain of hell, for ever withouten end: fiat: fiat. Doe to the boke: quench the

candles: ring the bell: Amen, Amen.' And then the book is clapp'd together, the candles blown out, and the bells rung, with a most dreadful noise made by the congregation present, bewailing the accursed persons concerned in that black doom denounced against them."

The uses of bells were summed up in the following distich, as well as one formerly mentioned:—

"Laudo Deum verum, plebem voco, coningo cierum,
Defunctos ploro, pestem fugo, festa decoro."

Literary Review.

36. *The Young Minister's Guide.* 18mo. Pp. 288. London: Simpkin and Marshall.

37. *The Young Minister's Companion.* 18mo. Pp. 252. London: Simpkin and Marshall.

THE title-pages of these two volumes sufficiently express the objects of their publication. The former work comprises "Outlines of Original Discourses on the most interesting and important Subjects," with a very excellent essay prefixed, on the inspiration of the Scriptures. The second comprises "Outlines of Eighty-five Original Discourses on the most interesting and important Subjects, to which are prefixed, Rules for the Composition of a Sermon," &c. &c. If there are any ministers of the church who need such helps as these, to them we safely can recommend the two volumes before us.

38. *Italian and English Dictionary.* By F.C. MEADOWS. 18mo. Pp. 664. London: Tegg and Co.

A VERY neat and good little volume, which will be found particularly useful for learners of the Italian language.

39. *The Parent's Cabinet of Amusement and Instruction.* No. XXXI. London: Smith, Elder, and Co.

FIT for children, conveying, in a simple style, much information, and an account of a few interesting circumstances relative to Manchester.

40. *A Teacher's First Lessons on Natural Religion.* By C. BAKER. 18mo. Pp. 36. London: Longman and Co.

THIS little book has been written to shew to young children, that there is a Great Being who has created every substance which we know of in the whole world;—that man could do nothing—could have neither food, nor clothing, nor habitations, without those material things, or substances, which God has so plentifully supplied for man's use and happiness. How far the author has succeeded may be learned from the rapid sale which attended the previous edition.

41. *A Teacher's Lessons on Scripture Characters, with Catechisms.* By C. BAKER. Second Edition. 18mo. Pp. 112. London: Longman and Co.; Hamilton, Adams, and Co.

MR. BAKER tells us in his Preface, that "this work was written for the instruction of deaf and dumb children; and the fact

of its having been found well adapted to their capacities and to their limited knowledge of the common forms of language, will, it is thought, tend to recommend it to general circulation,—since, whatever subject is so simplified in language, as to be understood by pupils whose knowledge at first is attained more by single words than by connected phrases, and whose acquaintance with language, even after years of instruction, is still imperfect, will necessarily be understood by children, who have been in the constant habit of hearing the various kinds of expressions which are uttered in their presence, or which are addressed to them."

The chief object the author has had in view, is to introduce to the child's notice the more prominent persons mentioned in the Scriptures; the method adopted has been to pursue the course of historical events, but to touch upon them so slightly as merely to connect them with the characters. The lessons are divided into sections, and after each are numerous questions, which altogether render the work instructive and valuable.

42. *Ten Years in South Africa.* By LIEUTENANT J. W. D. MOODIE. 2 vols. 8vo. London: Bentley.

SO much has been published of late years respecting the southern parts of Africa, that we should have imagined little more was left to be known: however, we have before us two volumes which, we confess, afford abundance of pleasing information, well told and very credibly authenticated, and apparently the result of a generous and unprejudiced observation.

As our space will not allow us to indulge in many extracts, we will satisfy ourselves by giving our readers the author's description of the Hottentot character:—

The Hottentots are possessed of acute though not very powerful or durable feelings. Their character is one of singular weakness, joined to the most lively perceptions and observation of external things. Their reasoning powers are of a mean order. They have not a little cunning when their suspicions are excited; but they are habitually honest, sincere, and confiding; and they will rather steal than cheat. They are quick in noting peculiarities of character or manner, but are incapable of forming a chain of deductions from their observations. They are also peculiarly ignorant of relative value and numbers. Out of a dozen Hottentots, I have found only one or two able to count to the number of twenty; and I remember one of them, who was by no means inferior in other respects, refusing to serve me for ten rix-dollars a month, telling me he had always got five from the Dutch. After vainly attempting to shew him his mistake, I was at last obliged to take him on his own terms. The Hottentots are sly in the extreme; quitting on a sudden whim a place where they have been well fed and well treated for months, for another where they know they

will be much worse off. If you ask them why they leave you, their usual answer is, 'Almagtig! mynheer, ik heb hier geweest voor een hullen jaar.'—'Almighty! sir, I have been here for a whole year.' If they have liked their situation, they will readily return to you again after they have had their ramble, and admit that they were great fools to change it, but that they were tired, and wanted to roam a little. The Hottentots are generous in the extreme to their friends and acquaintances, and can refuse them a share of nothing they possess. . . . A Cape-Dutchman's sympathies are confined to his own family: he knows not the feeling of friendship beyond the circle of his immediate relatives. But the Hottentots are like one large family, bound together by common injuries, common feelings, and common interest. This union constitutes their happiness; and of this comfort tyranny cannot deprive them. Theft is very uncommon among them, and they may safely be entrusted with any thing but intoxicating liquors, which they are not able to resist. . . . The most amiable trait in the character of these people is their sincerity. It is a well-known fact, that a Hottentot, when he is examined before a court of justice, generally tells the whole truth without disguise, though he is certain that his own conviction and punishment will immediately follow his confession. . . . I now come to the vices of the Hottentots. Though incapable of lasting resentment, they are passionate, savage, and cruel to their women and children on the slightest provocation. The men hardly ever come to blows in their quarrels; but the unhappy wife generally has to suffer for every temporary resentment of the husband, whether she has been the cause of it or not. On these occasions, the brutal husband often beats his wife in the most cruel manner, treads her under foot, and uses her in a way that would be death to a more delicate female. The wife, on her part, is by no means deficient in the artillery of her sex, and uses her other natural weapons with great effect, scratching, biting, and tearing the hair with the most undaunted courage, until she sinks to the ground with exhaustion; but the tongue still wags with undaunted volubility, in an overwhelming torrent of oaths and contumelious terms, which aggravates her punishment, until the infuriated husband is driven half frantic with disappointed rage. . . . These shocking scenes are generally occasioned by drinking, to which vice they are very much addicted. Intoxication seems to have a much more infuriating effect on savages than on civilized men, which is simply because they are less habituated to self-restraint. There is, however, nothing rude in the manners of the Hottentots on ordinary occasions: they are extremely affectionate, and are very delicate in avoiding causes of offence, never contradicting or interrupting each other in conversation, unless they are excited by violent passions.

TO CORRESPONDENTS.

"R. S." is informed that it has not yet been published.

We regret to have incurred "J. O.'s" disapprobation, yet we can assure him, that in his objections he stands alone.

"N. X." can procure the back Numbers at our Publisher's.

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No. IV.—SELF-INSTRUCTOR IN POLITENESS.

THE EFFECT OF MANNERS.

(Continued from page 107.)

We have already pointed out that it is not for individuals to set themselves up against the customs of society when those customs are harmless; we may add, farther, that there is a reason beyond those which we have already assigned for a frank and ready compliance with those customs, viz. that almost all of them have their origin in good feeling; and although we may not always see how they are useful, most of them have positive, and many of them have really important uses. It is particularly desirable that this should be borne in mind during the perusal of the remainder of the present brief article;—why it is so, we shall point out as we proceed.

There is no situation in which a young man requires more tact and attention, than at the table of a friend. There are certain forms established by society, and those forms must be attended to. For instance, it may be that a particular kind of soup or of fish may be so great a favourite with you that you would, were you dining by yourself, or at your own table, make your dinner entirely upon it; and so circumstanced, you would have a perfect right to do so. But when dining at the table of a friend, you must never,—though ever so politely pressed to do so,—allow either to be served to you a second time. And here is one of the occasions upon which we have to impress upon you the propriety of many, if not all, of those *bienséances de société* of which, at first sight, the young and the inexperienced are so apt to censure the unreasonableness and the uselessness. You like the particular kind of soup or of fish so well, that you would infinitely rather dine off of it than wait for any of the viands of the following courses. Perfectly reasonable, as far as you are concerned; and perfectly right, as we have before said, you would be in making your own liking your own rule were you dining by yourself. But the rule is to take fish or soup only once—because experience tells us that the majority of mankind care for either only once. Game, poultry, joints, &c. form the real meal of the many; and this being the case, custom is founded upon the taste of the many. Now your taste is an exception to the general rule; and with what conscience can you compel six, or sixty persons, as the case may be, to sit in silence, and in hunger too, while you, the individual, are indulging your own peculiar taste, and your own disgusting and disgraceful selfishness? Whatever we may think of the principle of “the greatest happiness of the greatest number,” in politics,* it is quite certain that in all that relates to harmless social customs, and to customs in which the yielding of the one is productive of rather a nominal or fancied, than real inconvenience, the principle is indisputable. Here, then, we see, at once, that the rules of manners have their foundation in good feeling and good sense. We see that the one, supposing him to be deserving of a place at any decent table, ought to be fully prepared to sacrifice his own solitary taste to the unanimous feeling and custom of those into whose society he is brought.

Trivial as the matter may seem, we shall, as we proceed,

* It was once acutely asked of Bentham, “Suppose yourself in a country where men believed in the necessity and propriety of broiling and eating their grandmothers,—would you join with them, or oppose them? If the former, on what principle would you become a cannibal; if the latter, how would you be serving the ‘greatest happiness of the greatest number?’”

find many opportunities of inculcating the forbearing (and, therefore, truly gentlemanly) feeling, which prompts the rule, which we are compelled to reiterate: “Never be helped a second time to fish or soup.”

We have elsewhere observed that we owe it to society, as well as to our own interests, not to be neglectful of our appearance. The dress which is becoming to a man engaged in laborious employments, is very unfit for one of a different avocation. A banking-house would speedily have its business reduced to a very complete sinecure, were the clerks to stand behind their desks in soiled fustian jackets and brown paper caps. It matters not that to a philosopher, a garb of stout fustian seems quite as desirable as one of broad cloth; perhaps, indeed, to be preferred. It is not with abstractions and first principles that we have to do in considering upon this matter—it is not for us to decide what the world ought to think, but to pay due attention to what the world really does think. We cannot rule the world; but that portion of the world with which we come into immediate contact, can, whether for good or evil, to a very considerable extent, rule us. We have already, in a former article, shown that there is something very like insolence in exhibiting a disinclination to comply with those customs of society which do not involve in themselves any real and absolute breach of the great first principles of religion and morality; we now, therefore, need only insist upon the policy of avoiding this sure means of making those around us either indifferent about our interests, or positively and actually hostile to them.

In nothing, perhaps, are mankind more apt, or more able to discover proofs of our actual character than in our dress; and to that consequently perfect matter of indifference as it is, *per se*, we ought to pay very great attention. At first sight, it may seem that there is very little real necessity for cautioning young men to be careful about their dress; but in point of fact, it is their extreme propensity to over-adornment which renders this caution absolutely indispensable.

To be an expensively dressed man, requires only money; but to be a well-dressed man requires—and is one of the surest evidences of—a pure taste. How many young men, for instance, do we see behind the counters of the better sort of tradesmen, dressed with a regardlessness of expense, that would be imprudent even in a man of considerable independent fortune, but which is an absolute insanity in men situated as they are to whom we allude; and yet among all this profusion, what an essential vulgarity may the discerning eye discover! Trowsers of one colour,—the brightest and gaudiest used for that garment!—waistcoat of another, coat of another—a coloured cravat, and striped stockings! And the colours not only all different, but all as much opposed to each other as though the coxcomb wearer had chosen them for the purpose of saying to all gazers,

“The force of contrast can no farther go!”

To be well-dressed, the darkest colours or black should be the ordinary dress. Linen of the finest texture, and of the most snowy hue: few, very few ornaments should be worn, and those should be real. No chains round the neck—above all, no mosaic gold in any shape. How very disgusting it is to see a man covered with trumpery, for which, whatever he may have paid for them—and your dealers in

such trumpery are not at all shy in asking enough,—we are positively certain that he could not obtain a sixpence if his life depended upon his doing so! Eschew, reader, all such fopperies. Cleanliness of person, white and fine linen, plain, dark clothing, a little behind the prevailing fashion, and the most exquisite neatness of every article upon him—these are the requisites of a well-dressed man of the middle order.

Only a few other remarks remain to be made. Preposterous whiskers and ultra-fashionable arrangement of hair are indisputable proofs of a poor, weak, vain, mind; they are never seen on a man of any rank without indicating the empty-headed coxcomb. Scents, no matter what—from musk in its intensity to the faintest lavender-water—are not merely in bad taste, are not merely effeminacies derogatory to the manly character; they are at least suspicious as to the cleanliness and decency of the man who wears them.

It cannot be too frequently or too emphatically urged that good feeling is the only solid foundation of good manners. A habit of quiet but careful observation of what is going on around us, will, undoubtedly, do very much towards giving us an easy and winning demeanour: it has this advantage, too, that its instructive process is twofold, for we see not only what we ought to imitate, but also what we ought to avoid. But our making the best use of the knowledge thus acquired, depends upon our having a pervading and invariable desire to avoid every thing which would be offensive to our associates, and discreditable to ourselves.

Less, perhaps, from a positive want of this desire,—amiable in itself, and the *principium et fons* of whatever qualities make even most agreeable in company, and most justly self-complacent,—than from the want of a constant vigilance of self-observation, many young men permit themselves to acquire habits calculated to render them any thing but agreeable companions. Conversation, properly so called, is, for instance, at once one of the most delightful and unexceptionable of all amusements, and the one which surpasses all others in its power to impart solid value coequally with elegant recreation. And yet, how rarely do we meet with very young men who are perfectly agreeable in conversation! Some from silly pride, or from an almost equally silly excess of bashfulness, confine themselves almost entirely to monosyllabical affirmation or negation; and if they do occasionally venture upon speaking a few consecutive sentences, do so with the air of a man consciously guilty of committing some glaring impropriety. Every reader will be able to call to mind some friend or acquaintance whose good qualities are obscured by this fault. But the opposite fault, excessive loquacity, is still more common; we may add, too, that it is still more offensive and indefensible. Persons who are guilty of it are never really liked. The politeness of their associates may prevent them from rebuking this unpolite wordiness; but it does not prevent them from seeing and from disliking it. No wit, no knowledge, no felicity of language can wholly atone for it. He who will not listen as well as talk, practically insults his company. He says to them—in effect at least—“I am here to bestow knowledge, not merely to interchange it. You can tell me nothing which I do not already know—listen to me, and you will be enlightened; speak, and you doubly waste time, for you tell me what I know already, and you prevent me from telling you what you do not know.” No one who has the slightest regard for his own comfort, or for the feelings or opinions of others, would venture to say this in terms; but every one whose eagerness to be heard causes him to interrupt others and to engross the conversation, is practically guilty

of this mixture of presumption, ignorance, and want of tact. Even the vast learning and wonderful oratorical powers of Dr. Johnson could not prevent him from being disagreeable to many whose good opinion he no doubt set a high value upon; and yet if ever a man lived, capable of excelling all his company equally in the value of his sentiments, and in the beauty of the diction in which they were couched, Dr. Johnson unquestionably was that man. The most cursory perusal, however, of the valuable work of Boswell, will show us that the learned doctor comported himself far more in the *ex cathedra* style of a lecturer than was either pleasant to the feelings of his friends, or creditable to his own tact. If, then, even that great man could not unblamed monopolise the attention of his company, use a loud and almost angry tone, decide dictatorially, contradict rudely, and speak lectures, instead of interchanging sentences, how can any young man hope that he, without any of the Doctor's powers, may with impunity imitate the Doctor's faults? We have often in this work remarked upon the force of habit; and we are perfectly certain that many of the practices which make men disagreeable, are infinitely more the offspring of bad habit than of want of good feeling. He who truly desires to have really good manners, should, while yet young, habituate himself to great vigilance. We should daily and hourly examine his conduct, even in the most simple and seemingly non-essential points, and test that conduct by the divine rule and maxim, “Do unto others as you would that others should do unto you.” This is, indeed, the golden rule not only of morals, but also of manners.

If some kinds of bad manners—such for instance as that we have just expatiated upon, though having their origin in want of reflection rather than in actual want of good feeling—injure young men by making them disagreeable to those with whom they associate, and upon whose opinion they more or less depend for their future progress and position in society, there are others which, though they may originate in mere folly, can only be persevered in from a thorough selfishness and contempt of the tastes and feelings of others. The at once filthy and senseless habits of smoking and snuff-taking are especially in this category; and as these habits seem to be hourly on the increase, we think it especially necessary to warn our readers against them. No one who indulges in them can fairly claim either the title of a well-bred man, or of a man of sense.

These bad and offensive habits, are mere habits; and while on the one hand they cannot in any case bestow any real gratification, they must injure the health, and may even destroy life. The most eminent medical men of all nations bear testimony to the mischievous tendency of the use of tobacco in any shape; and they all concur without a shadow of variation as to the process by which the injury is effected. The snufftaker is invariably pale, dull-eyed, and if for a short time deprived of his filthy indulgence, lethargic. His face is wasted as well as pallid, and his appetite is generally, as his digestion is always, completely and incurably diseased. How, indeed, can it be otherwise? If snuff were even, as the venders of it pretend, only prepared tobacco, how can a man stuff the fine vessels of the head with this most acrid powder—how allow particles of this most potent narcotic to enter his stomach—without injury? It is well known, not only to the medical profession, but also to all gardeners, that nothing is more powerful than tobacco in the destruction of the life of insects. The rose and the sweet brier are very apt to be infested by a small green fly. Thousands of these cover the stem, lying layer on layer, and thousand on thousand. A fumigator, or even a simple clay pipe, filled with burning tobacco, being procured, the smoke

is directed upon the stem of the infested shrub, and a few seconds suffices to leave the stem free from the insects, which lie dead or fast dying at its foot. And yet men, reasoning men, voluntarily, and as matter of amusement, inhale the smoke, or swallow what they suppose to be the pulverized substance of a weed so potent in its effects!

Par parenthèse, we may remark, that snuff is by no means so exclusively composed of tobacco as its deluded and offensive votaries would fain suppose. Independent of its being adulterated with a variety of wild herbs indigenous to England, and therefore very profitable to Messrs. the snuff-mongers, who sell it for genuine pulverized tobacco, it has been proved in a court of law, that ground-glass—pulverized glass!—is one of the pleasant ingredients with which a titillating mixture is occasionally made for the delectation of those who delight in cramming their own nostrils, and disgusting both the scent and the sight of their neighbours!

Between two such offensive and senseless customs as snuff-taking and smoking, it is no very easy matter to decide which is the worse; it seems to us, however, that the smoker is even more senseless and more offensive than the snuff-taker. Great smokers are invariably afflicted with dyspepsia; and their pallid and soddened aspect ought of itself to be a warning to those who have not addicted themselves to this filthy and noxious habit not to allow themselves ever to commence it, even were self-love the only principle it were advisable to test it by. But the man who is weak enough to indulge in the habit of smoking, is a mere ambulatory nuisance. His clothes, his hair, the very books he reads, nay, his very letters, have a fetid and noisome odour. You cannot pass such a man in the street without being annoyed; and as to speaking to him, you might quite as pleasantly, and perhaps even more safely, speak to a man in the habit of swallowing garlic!

Even when the smoker has so much good sense or good feeling as to confine the indulgence of his filthy habit to his own house, he is offensive to the nostrils of all with whom he comes in contact when he goes abroad; but many young men of the present day seem to think that that is not sufficient offence against society. Fancying it manly,—and probably led into that egregious mistake by the doggerel puffs published by people who obtain their subsistence by vending in various shapes the filthy and poisonous weed,—young men, to all appearance respectable in their situation, may be nightly seen stalking along the streets smoking cigars—a practice which has all the filthiness of smoking through a pipe with the superadded nastiness of chewing tobacco, as well as inhaling its poisonous fumes! Do you wish to injure your health, blacken your teeth, disgust and offend your friends, waste your time, and render yourself a perfect nuisance? If so, you have only to smoke: your business will be done to your heart's content!

In Dr. Johnson's *Life of the imprudent and unhappy poet Richard Savage*, there is a remark deserving of the notice of all who desire to be really well-mannered: we refer to the Doctor's statement of the frequent offence which Savage gave to his best friends by his unconscionable waste of their time. He seemed as if he supposed all persons to have as little to do as himself; candles burnt to the sockets, watches frequently looked at, gentle hints—in short, any thing less than plainly telling him that no more time could be spared, (and that was sure to give him deadly offence,)—was insufficient to relieve his wearied host of his company. The Doctor apologizes for Savage, by saying that this indifference to the feelings and convenience of others arose from poor Savage having no home to which he could betake himself; but this apology of the partial friend, though it may give us

a good opinion of the Doctor's heart, has something less than his usual closeness and cogency of reasoning. In telling us that Savage's inattention to the feelings of his friends did not arise from want of good sense, he, in so many words, tells us that it did arise from want of good feeling. It was convenient to him to stay; and, therefore, though he knew that his stay was a nuisance and an injury to his friends, he staid!—a curious defence enough.

But in truth there are but too many, who, without even the poor defence of Savage, are very prone to wearying their entertainers. A really well-bred man cannot do this. No one can be so thoroughly ignorant of the pursuits and habits of those with whom he associates, as not to know how to time his departure so as to suit their convenience. Politeness may induce our friends to invite us to stay even when they are heartily glad that we are preparing to go; and this is not hypocrisy. It is their duty to us not to seem wearied; it is equally our duty not to take advantage of their politeness.

Another very common error is that of tattling;—in point of fact, though this mischievous practice originates in folly, it but too frequently has all the evil effect of crime. Many things are spoken in company which, out of that particular company, the speaker would not choose to have repeated; and it should never be forgotten, that when we enter the house of a friend, and listen to the conversation of his guests, we do so on the implied though not expressed condition that all that is there spoken is spoken confidentially. Too frequently this sacred, though tacit compact is lost sight of, and irreparable mischief done by thoughtless and gossiping people repeating at one house what they have heard, perhaps only jocularly, said at another. Friends are frequently thus estranged, and the foundation of bitter enmities laid; and the tattler who causes this mischief is usually himself a sufferer by it, for, while the one party detests his treason, the other very rarely fails to despise the traitor even while listening to his treacherous tale.

If we hear the mere foibles of an absent friend jocosely satirized, it becomes us in the same light and laughing manner to defend him; if we hear his moral character seriously impugned, it is still more incumbent upon us zealously but temperately to defend him against the charge, or at the least to demand proof of the charge made against him. But it must be borne in mind that very many persons may satirize foibles without having any real dislike to the person spoken of; nay, in all probability, the very persons who are most prompt to smile at absurdities of manner, would be the very first to sympathize with distress of mind, or to relieve distress of circumstances. But if their lightly spoken, and quite innocently meant, satire, be carried to the ears of the person satirized, a rupture almost inevitably takes place; and we have thus, for the sake of mere talking, laid the foundation of enmity between persons who might otherwise be cordial and valuable friends to each other during their whole lives. In this, as indeed in all the really vital points of good manners, our readers will find that they have only to test their conduct vigilantly by that golden rule to which we have already referred them, in order to have a safe and sure guide in all cases in which they may feel doubtful as to how they ought to act. Let them carefully and constantly cultivate good feeling, and they will be in little danger of erring against good manners on the more important points: if they carefully cultivate that, they secure propriety in the greater points of good breeding. There are, of course, very numerous matters of mere custom, which no book can teach; inasmuch as the mere customs of society differ with every difference of rank, and almost with every difference of place;

but even those, impossible as it is to teach them through the medium of a book, will be rapidly and without any difficulty learned by any one who has, firstly, a sincere desire to be well-mannered; secondly, a constant watch upon his own conduct, as compared with that of those with whom he

associates; and thirdly, a sincere desire to give all the pleasure he can, and no pain. With these, he will never offend against the greater proprieties, and he will not long remain liable to err even as to the minuter and the less essential ones.

DEMOCRACY ILLUSTRATED, OR THE RISE AND FALL OF THE ANCIENT REPUBLICS.

No. II.—ATHENS.

(Continued from p. 112.)

THE senate of four hundred was intended by Solon to curb the levity and love of tumult of the multitude, and the Areopagus to prevent the wealthy from encroaching upon the rights and the liberties of the poor; but, from the very nature of the people, they were incapable of being really well ruled by any other government than that of a despotism at once humane in desire, and inflexible in severity. And we find that Solon's laws, wise as that legislator was, and sincerely as he appears to have aimed at the welfare of the whole body politic, were, under the actual circumstances, calculated only to procrastinate, and not wholly to prevent the ruin of Athens. Among other proofs of this we may notice the sarcasm of the philosopher Anacharsis, who, speaking of Solon's laws, observed that they were "like cobwebs which would entangle, indeed, the poor and the feeble, but would be easily broken through by the wealthy and the powerful." The reply of Solon seems to us to furnish a complete key to the cause of his ill success. He replied, that "men would always abide by laws which they had no interest in breaking," and that "his laws were so well adapted to the wishes of his countrymen, that they would feel it more advantageous to obey them than to violate them." In this reply it is easy to discern Solon's besetting error as a legislator. He made too little allowance for passion, and too much for reflection; and in stating the fact that men are fond of their own interests, he committed the fallacy of overlooking the equally certain fact that men are very prone to *mistaking their interests*. It was undoubtedly the interest of the wealthy Athenians to give the multitude no reason to desire revolution, and it was the interest of the multitude to be peaceable, industrious, and frugal; but the former could not abstain from oppression, nor the latter from tumult, extravagance, and levity. *Each* was more than sufficiently eager for what it falsely thought its own advantage—but each was blind, utterly blind to its real interest. From his inattention to this very important distinction between self-love, and knowledge of real interests, we think arose the inefficiency of Solon as a legislator.

So far were the Athenians from having any portion of that reasoning power which Solon too indulgently attributed to them, that their love of luxury, and dislike of steady industry and frugal living, (those only true sources of the general comfort and contentment of a community,) rendered them at length so universally venal, that Pisistratus, a relation of Solon, by dint of profuse bribery, obtained permission to be attended by an armed guard. As soon as this important concession was made to him, he seized upon the citadel, and setting at nought both the laws and the opposition of Solon, established himself as the single tyrant of Athens. We say established himself, for though his usurpation caused innumerable civil contests, in the course of which he was several times obliged to fly from the city, he ultimately regained his power, and at his death bequeathed it to his sons Hippias and Hipparchus. The latter of these having

injured the famous Harmodius and Aristogiton, was sacrificed to their memorable vengeance, and his brother, deprived of his support, was speedily driven into exile.

We have seen that the venality, resulting from luxury and idleness, of the Athenians, enabled Pisistratus to usurp despotic power, and that his tyranny kept Athens in perpetual disorder during his life-time; while the tyranny of his two sons terminated in the assassination of one of them, and in the exile of the other. But the evils resulting to the Athenians from their own utter and detestable corruption were not destined to end here. Hitherto their vileness had only raised them up domestic enemies; now, however, they were to be exposed to the attacks of a foreign foe.

Hippias, the exiled son of Aristogiton, applied to Darius of Persia for aid to reconquer Athens; and that king, complying with his request, sent the army of Persians which first invaded Greece. The invasion, it is true, was unsuccessful, and Hippias himself was one among the slaughtered host at the famous battle of Marathon. But though the invasion of the Persians did not replace the tyrant Hippias in the authority he had so much misused, it caused the people to be kept in that constant state of alarm and suspicion, which of all popular moods, is the one most favourable to the ill-principled and greedy demagogue. Accordingly, from the time of the invasion of the Persians on behalf of the exiled tyrant, Hippias, we find the history of Athens completely crowded with instances of demagogue craft gulling the people, and of popular fury and madness driving the ablest, bravest, and purest patriots into exile, or proceeding to the still greater atrocity of shedding their blood.

Between Athens and Sparta there long subsisted a jealousy, which led all the most violent men of both countries to desire a war. Where this desire is intensely felt and long brooded over, it rarely happens that a pretext is not sooner or later found for the commencement of open hostilities. The opportunity, long desired by the Athenians and Spartans, was at length furnished by the following incident.

The Thebans entered Plataea, a small state in alliance with Athens, and though they were ultimately repulsed with great slaughter, were long enough in possession of the city to be guilty of the most hateful atrocities. The Plataeans naturally enough applied for aid to Athens, and the Thebans, on their part, found ready and zealous allies in the Spartans. Thus began the Peloponnesian war, in which, sooner or later, every state in Greece became involved. Where the Spartans obtained the mastery, oligarchies were established by the aristocracy; where the Athenians prevailed, they established no less tyrannous democracies; and both parties behaved rather like tigers mad with hunger, than like human beings. Truces were violated as quickly as made, and revolted citizens committed to-day massacres as sanguinary and unsparing as those which had yesterday been perpetrated

upon citizens by the aristocracy. After this horrible state of things had lasted for several years, Alcibiades appeared upon the stage of events; and the long time during which he had great influence upon the course of Grecian affairs demands that we should give some brief account of him. Handsome, accomplished, daring, and subtle, Alcibiades, uniting in his person the greatest possible love of intrigue, and a Protean power of rendering himself, in outward seeming, "all things to all men," was precisely the person to sway the fickle, lead the enterprising, and dazzle the luxurious among the Athenians; and, unhappily, to one or other of these classes the great majority of the Athenians belonged.

Pericles, whose chief fault was his eager desire to humble the Spartans, a desire which made him anxious rather to continue, than to put an end to the Peloponnesian war, thoroughly knew his countrymen; and though he undoubtedly was anxious for the welfare of Athens, he was also anxious to preserve his own power, and to use that power in humbling the Spartans. In order to retain his popularity against men of infinitely larger private fortune, he caused immense sums of the public money to be expended upon games and plays for the diversion of the rabble; thus impoverishing his country by extravagance, at the very time when his public policy demanded the most rigid economy of the public treasure. Great as his services often were to Athens, it may be doubted whether they were not almost outweighed by the injury he thus—perhaps unwittingly—did in fostering a taste for luxury, extravagance, and effeminacy. Whether his measures would ultimately have redeemed this error, it were now impossible to judge; for in the awful "Plague of Athens,"—a visitation so awful as to be a complete era in Grecian history,—the great Pericles was among its almost innumerable victims.

At his death, Nicias, an able officer, but one infinitely too mild in temper to keep in due subjection so turbulent and fickle a people as the Athenians, was supported in power by the nobility, in opposition to the insolent and wordy demagogue, Cleon, who had signalised himself by his turbulence even in the time of Pericles, and now became the darling leader of all the most disaffected and dissolute of the multitude.

Nicias, perceiving that not only Athens, but all Greece, was injured by the continuance of war, which interrupted profitable industry, and filled every state with desperate and daring adventurers, used every exertion to bring about a peace. Cleon, well knowing that turbulence and strife afforded the best possible opportunity for the exercise of his peculiar qualities as a demagogue, was of course strenuously opposed to peace—and to Nicias, as its advocate. But in spite of the efforts of Cleon, backed as he was by all that was desperate and infamous in Athens, Nicias, in the tenth year of the war—the demagogue, Cleon having just then fallen in battle, though his evil spirit long animated his surviving partizans—succeeded in concluding a treaty of peace between Athens and Sparta for fifty years. But before Nicias had time to make the cessation of hostilities useful to Athens, a new disturber of his policy appeared, quite as active as Cleon, and infinitely more able—we mean Alcibiades.

Ambition is even more powerful than personal hatred in making men unjust. The great sagacity of Alcibiades rendered it impossible for him to be unaware that the policy of Nicias, in endeavouring to preserve peace between Athens and her powerful rival Sparta, was a policy creditable to him, both as a politician and as a philanthropist. But the very wisdom of Nicias made Alcibiades the more anxious to traverse his policy; he saw that he must either be second

to Nicias in maintaining peace, or triumph over him in advocating war; and rendered callous to the sufferings of his country by his craving lust of power, he at once determined upon the latter course. Procuring himself to be elected general, which was easily done by flattering the base and fickle populace, he caused new hostilities to be commenced against the allies of Sparta, and thus rekindled the terrible war which the wise efforts of Nicias had for a time put a stop to.

In the seventeenth year of the Peloponnesian War, the Egestians, a weak and scanty people in Sicily, applied to Athens to protect them against the tyranny of Syracuse. Caring little for the interests of his country, Alcibiades exerted himself so effectually that an armament was fitted out, and placed under the command of himself, Nicias, and Lamachus. Scarcely, however, had Alcibiades left Athens on this expedition when his enemies revived against him a charge of having sacrilegiously defaced the statues of Mercury. This charge had been brought against him, in fact, previous to his departure, but by his eloquent appeals to the people, he had persuaded them to postpone the investigation of it until he should return from an expedition, from which he promised them immense benefit. Taking advantage of his absence, his enemies had now so much excited the people against him that he was summoned to return in the state galley by which the summons was conveyed, to take his trial on the charge of sacrilege. Alcibiades perceiving at once that his ruin was determined upon, coolly affected the utmost obedience, sailed from Sicily in company with the state galley, landed at Thuria as if for mere pleasure, and left the baffled messenger to return to Athens at his leisure. When the Athenians found that Alcibiades was too crafty to return to take his trial, they condemned him to death, *par contumace*, and confiscated his property.

Whether Alcibiades really was or was not guilty of the sacrilege with which he was charged, it is by no means easy to determine. On the one hand, his known propensity to every kind of extravagance and licentiousness renders it by no means unlikely that he was guilty; on the other hand, the virulence of party in Athens renders it quite as likely that his enemies were themselves the authors of the sacrilegious acts, with the premeditated purpose of taking advantage of the licentious character of Alcibiades to charge them upon him; and what seems to render this latter supposition rather probable is, that a fellow was induced by a promise of pardon to confess himself a participator in the sacrilege, and he in his impeachment included no one but Alcibiades and his known friends and intimates.

However the charge against him originated, whether in his actual guilt, or in subornation of perjury on the part of his enemies, it was of great ultimate injury to Athens; for both the fleet and the army were disgusted and dispirited when the ablest of their leaders was thus obliged to abandon his command and seek safety in exile; and Alcibiades himself, enraged against Athens, sought shelter in Sparta, and caused that country to send such aid to the Syracusans as sufficed utterly to rout the Athenians, of whose fleet not a vessel escaped, and among whose heaps of slain was Nicias himself. Elated by this good success, the Spartans and their allies now prepared to carry the war into Athens itself. And now Pisander took advantage of the general panic at Athens to usurp vast authority. He lodged all power in a small oligarchy, and, supported by a band of mercenary troops, he and the four hundred committed such tyrannies that the people at length could endure it no longer. A counter revolution took place; Alcibiades was recalled, and put at the head of the forces both by sea and land; and, with the title

of captain-general, he had for the time the actual power of a despotic monarch. His power, however, was but of short duration, for Antiochus, one of his lieutenants, being defeated by Lysander, the Spartan admiral, the enemies of Alcibiades found little difficulty in directing the whole anger of the fickle people upon him, and he was forthwith deprived of his command.

His country was soon taught to feel the loss of his splendid military talents, their fleet being entirely routed by the Spartan admiral, Lysander, only eight vessels escaping capture or destruction. Quickly following up this victory, Lysander invested Athens itself; compelled it to surrender at discretion, and appointed thirty governors with absolute and irresponsible power.

From this time Athens may be considered to have been ruined past all hope of redemption; for though the thirty tyrants were expelled, and though some few bright characters illustrated the future annals of Athens, real liberty, or even the love of it, was never regained. From the time of Pericles they had gradually become more and more infatuated with pomp and luxury; upon theatrical representation they willingly expended infinitely larger sums than those which they bestowed upon their army and navy; and they at length grew so corrupt that, in the time of Demosthenes, that great orator and Phocion were the only powerful public men who were not the purchased and paid slaves of the ambitious and politic Philip king of Macedon. His gold had corrupted all others—and passion made the vast abilities of Demosthenes in the end almost as fatal to his country as even his corruption could have been; for when at the head of affairs he allowed his hatred of Phocion to cause him to deprive that able general of the command of the Athenian

troops, and to commit that important trust to Chares and Lysicles, the former a known coward, and the latter brave enough as an individual, but destitute of ability and experience as a general. This fatal change of commanders took place just before the fatal battle of Chæronea, in which the Athenians were, in consequence of that change, utterly routed, and Philip of Macedon, from being king of one petty place, became the virtual arbiter of the destinies of Greece.

Through the whole of this brief sketch of the history of Athens, we perceive that the *vices* of the people became the instruments of bringing about the people's punishment; and we perceive, too, that when a people are thoroughly depraved, the utmost danger to their public liberty is insufficient to wean them from their base attachment to their own individual enjoyments. When Athens was tottering to her fall, the selfish and effeminated Athenians were infinitely more anxious for good actors than for able generals—for fine poets than for honest and skilful statesmen; and so, in modern France—whose people have until very recently borne a singularly striking resemblance to the Athenians in their mingled levity and tendency to turbulence—the horrors of the revolution, when the ambulatory guillotine, dripping with the best blood of France, traversed the streets of Paris, the theatres were not the less crowded, and the thoughtless Parisians were not the less easily delighted.

If history is what it is called, and what it ought to be, "Philosophy teaching by example," the history of both Athens and France may teach us, both as individuals and as a nation, to beware of excessive luxury, as the fruitful parent of national degradation and of individual suffering.

(To be continued.)

NO. II.—POPULAR SUPERSTITIONS.

(Continued from p. 104.)

POPULAR superstitions are of two kinds; the one has its source in misunderstood natural phenomena, the other in circumstances of man's production, of which the *results*, but not the cause, are perceived. Perhaps specimens of these two classes of errors will, better than any abstract disquisition, tend to disabuse the minds of the credulous, and teach them to take nothing to be supernatural merely because the cause of it is hidden from their view. All of our readers who have ever been in the country must at certain times in the year have observed round rings of extremely vivid verdure in the green sward—and especially in the neighbourhood of large and ancient trees. The peasantry of nearly every part of England give to these rings of bright verdure the name of "Fairy Rings;" and they suppose that the elastic trip of Mab and her attendant sprites, dancing beneath the pale and beautiful light of the moon, causes the appearance in question. Again and again we must insist that for Christians, having the blazing and beauteous light of the gospel to lead them to right conclusions,—for men thus invariably situated to attribute the effects of unknown causes to—

"Witch and wizard, sprite and fiend,"

is not only silly, but is at least very closely approaching to actual impiety. Now this particular appearance has not even the quality of being inexplicable: on the contrary, it is clearly and distinctly to be accounted for by strictly natural principles—principles which are hourly at work throughout the universe, and to other and much grander effects of which we never dream of assigning any other than natural causes.

An acorn is planted in the ground, and in due course of years it produces a magnificent oak. Do we assign this really wonderful metamorphosis to witchcraft? And yet the mere growth of *fungi*—which every vegetable corruption, and even some animal corruptions produce—is so astounding, that we who see without wonder a few grains of wheat produce fifty fold in increase, growing on graceful and stately stalks; and who day by day witness the growth of the "forest monarch," which we remember a puny and slender sapling, are not ashamed to refer an unusual brightness of verdure to the midnight gambols of a race which, both reason and a right understanding of Scripture assure us, has no existence!

Some natural philosophers, justly anxious to explode so degrading a superstition, have very improbably and illogically referred the "fairy rings" to the action of lightning; but this reference is a great deal more remarkable for its ingenuity than for its justice. All who have watched the play of the lightning, darting now hither, now thither—now in one broad blaze of dazzling and almost blinding light—now shooting in one straight path, like a blazing arrow—and anon playing from side to side in eccentric lines and angles; all who have noticed this will agree that if there were no other reason (as, for instance, the colour of the "fairy rings,") why these rings should not be referred to the action of lightning, abundantly sufficient reason would be found in their figure. They are invariably circular, but the lightning does not invariably strike in a circle; and this is indispensably necessary to the correctness

of the theory to which we allude. Far more reasonable—so reasonable, indeed, as to our understanding to seem undeniable—is the theory which refers these appearances to the growth and decay of *fungi*. These have been found in “rings” of the kind, and these rings are the most frequently found, and the most distinctly developed and vividly coloured, in parks and forests; precisely the situations in which, from the fall and corruption of leaves, *fungi* the most abound. To a superficial reasoner it may seem that this theory is open to something like the same objection which we have urged against the supposition of lightning producing these appearances; but the two cases are very far indeed from being parallel. In the case of the lightning we actually see the cause; and we see, too, that it is mathematically impossible that lightning striking the earth in every eccentricity of line and angle can leave the marks of its scathing in “circles.” But in the case of the *fungi*, though we cannot say why they grow in circles, yet we have experience for the fact that they do so; and be it remembered, that this form of growth of *fungi* is only one of very many phenomena, of which we cannot by our philosophy explain the cause and process, but which we see as results. We cannot tell why, or even how, a lobster, whose claw is wounded in strife or by accident, gets rid of that claw and has another in its stead; yet we well know that lobsters do so, and assuredly there is much more to be surprised at in such processes as these than in *fungi* growing in a circle.

Another perfectly natural appearance which, though quite explicable on the known and indisputable principles of natural philosophy, is made by ignorant people an object of superstitious dread, is what in some parts of the country is called “Jack o’ Lantern,” and in others “Will o’ the Wisp.” Wherever there is a flat, low, marshy piece of ground, there this appearance is certain to be seen, especially in a dark night following a hot day. In general the difficulty of persuading the peasantry that this appearance is not only perfectly natural, but is also perfectly innocent into the bargain, arises merely from the difficulty of leading an untrained mind to distinguish between being, and cause and consequence of that being. You tell a peasant that this luminous appearance is perfectly harmless; he replies by saying, ‘There is the appearance. John Tomkins was found smothered in yonder marsh, into which he was led by this light; and it appeared very vividly the very night before the widow Jones expired.’ Here is your difficulty; and it requires great tact and no less patience to surmount it. If you take the trouble to inquire patiently into particulars, you are pretty sure to find that the ploughman whose death is attributed to the malignant misguidance of Jack o’ Lantern was, in point of fact, so exceedingly intoxicated, that he would have been suffocated in the shallowest ditch, in the most perfectly dark lane between the ale-house and his own cottage; and that the widow, of whose death the gaseous meteor was, as you are gravely assured, a “token,” had been for eighteen months in a decline, and for the latest third of that space of time so far gone in hopeless disease that every new day of her survival was a perfect marvel and mystery to every medical man aware of her situation. Here is the ground upon which to found our exertions in the cure of superstition. The facts must be lucidly and emphatically pointed out; and they must be put in every intelligible variety of phraseology and point of view.

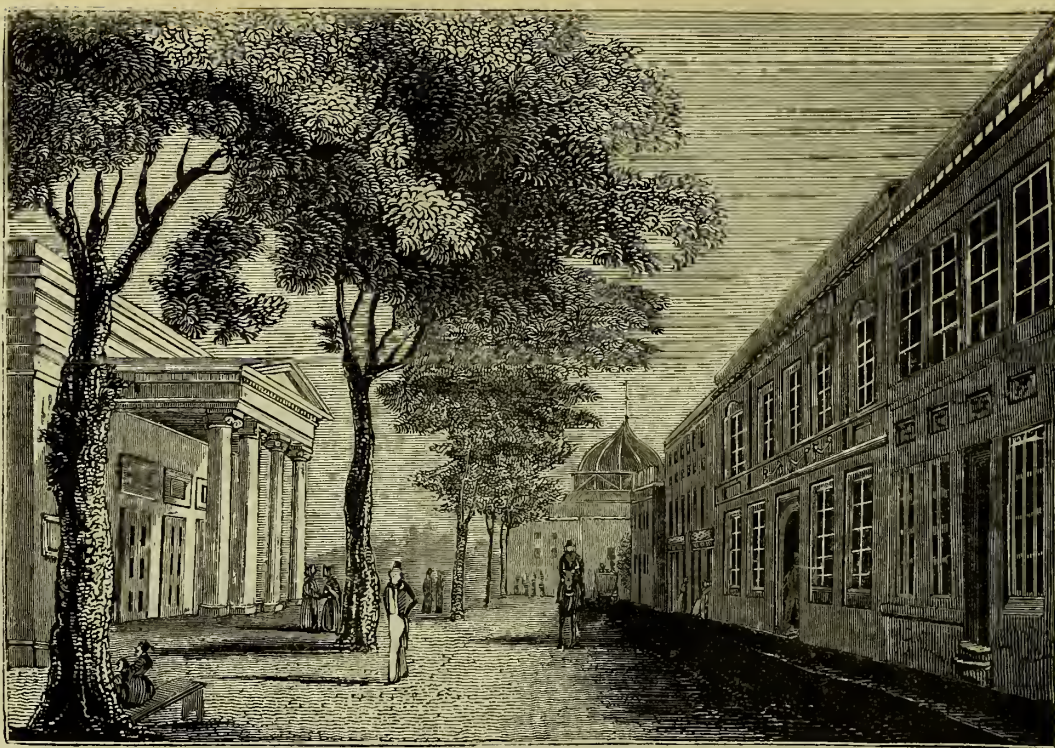
Having once shown that the occurrences which have been ignorantly attributed to the malignant influence of “Jack o’ Lantern,” are in plain truth the results of different and perfectly natural causes, the road will be fairly open to us to show the actual nature of the harmless and much libelled

“Jack o’ Lantern.” We may show that hay, ill-saved,—as the country phrase is,—fires from being damp and closely packed. We may point (if any where near the sea-coast) to those fields which, as is very commonly the case in marine neighbourhoods, are manured with fish; and immediately after the dusk of the evening, whole sheets of phosphoric light will be seen of a brilliancy compared to which the dancing light of the “Jack o’ Lantern” is but as the feeble glimmer of a small candle to the bright flood of light of the beautiful “harvest moon.” Here the peasant, however superstitious and however ignorant, scholastically speaking, will feel on sure ground. He can see at once cause and effect; he can see that the light becomes brighter and brighter as, up to a certain point, the corruption of the fish becomes more and more complete. Having thus explained an analogous appearance, we may now safely and surely proceed to point out the nature of inflammable gases; and if, after having done this, there seem to be still some lurking remnant of a painful and superstitious terror, we may at once dispel that by the simple process of taking a closely stoppered phial to the marsh, filling it with the gas, and burning it before the peasant’s eyes, and in his own cottage. It may at first sight seem that this process might be at once resorted to without the previous labour of reasoning, and adducing analogous phenomena, which the superstitious do not refer to supernatural and malignant causes. But it should be constantly remembered, that the habits of the mind, like the habits of the body, become, to a very considerable extent, a second nature; and in order thoroughly to obtain the mastery over them no means should be neglected, for on the one hand many minds may be convinced by reasoning, who would not yield their prejudices to mere experiment, while many others are open to conviction by both, who would resist the single force of either. To this it may be added, that no sincere well-wisher to the intellectual progress of mankind should think any process too tedious which promises to dispel superstition, at once the most degrading weakness of the human mind, and the most formidable of all the numerous and potent obstacles to its onward march. Corruption, whether animal or vegetable, emits a phosphoric light in the dark nights; and every one of our readers who has lived in the country, has no doubt known stalworth peasants, whom nothing bodily would frighten in the open day, to be scared well nigh to idiocy by the light emitted by a decaying stump of wood. Show this man a phial of phosphorus in the day-light, make him observe how utterly colourless it is; and then show him that in the dark, and especially if agitated, it emits a light quite strong enough to enable him to read tolerably large print: having done so, explain to him that the decaying stump of wood which so terribly alarmed him emitted phosphorus, and he must be stolid indeed, and inseparably wedded to folly for folly’s sake, if “light-wood” ever alarm him again.

(To be continued.)

THE sun shines in his full brightness, but the very moment before he passes under a cloud, who knows what a day, what an hour—nay, what a minute may bring forth? He who builds upon the present, builds on the narrow compass of a point; and where the foundation is so narrow, the superstructure cannot be high and strong too.—*South.*

THE persons of all men are to be alike equal to us, and our hate or love should go according to their virtues or vices.—*King James.*



Public Walks of Bremen.

B R E M E N.

BREMEN is one of the most ancient cities in Germany. It is the "*Phaberanum*" of Ptolemy, and was known as the seat of an archbishop in the reign of Charlemagne; also, as one of the earliest and most strenuous supporters of the Reformation. At the peace of Westphalia, in the year 1648, it was relieved from papal thralldom, and confirmed in state-freedom, with rights, privileges, and immunities, civil as well as ecclesiastical. In 1757, the city was taken by the French, who, however, enjoyed their triumph only for a brief period; for on the appearance of a small band of the Hanoverian army, they abandoned their conquest. In 1806 it was again successfully attacked by Napoleon Buonaparte, who annexed it to the French empire, of which it remained a part till 1813, when it threw off the French yoke, and became one of the four free cities of Germany.

Bremen is separated into two parts by the Wesser; on one bank of which stands what is called the "Old Town," while on the opposite side of the river is situated the "New Town." Except the principal street, which is of moderate width, the avenues in the old town are inconveniently narrow, and the houses seldom reach higher than two stories. Most of the magistrates and principal inhabitants reside during the winter in this town, but their gardens and summer abodes are in the new one. The two towns are joined by a large bridge, which supports an immense hydraulic machine, placed there to supply the inhabitants with water. The objects of greatest attention to travellers are the Cathedral, the Museum, the Town-Hall, and a coffee-house, the frontage of which is profusely ornamented with figures sculptured in bas-relief.

Under the choir of the cathedral—which is an ancient Gothic structure—is the chief curiosity the people of Bremen

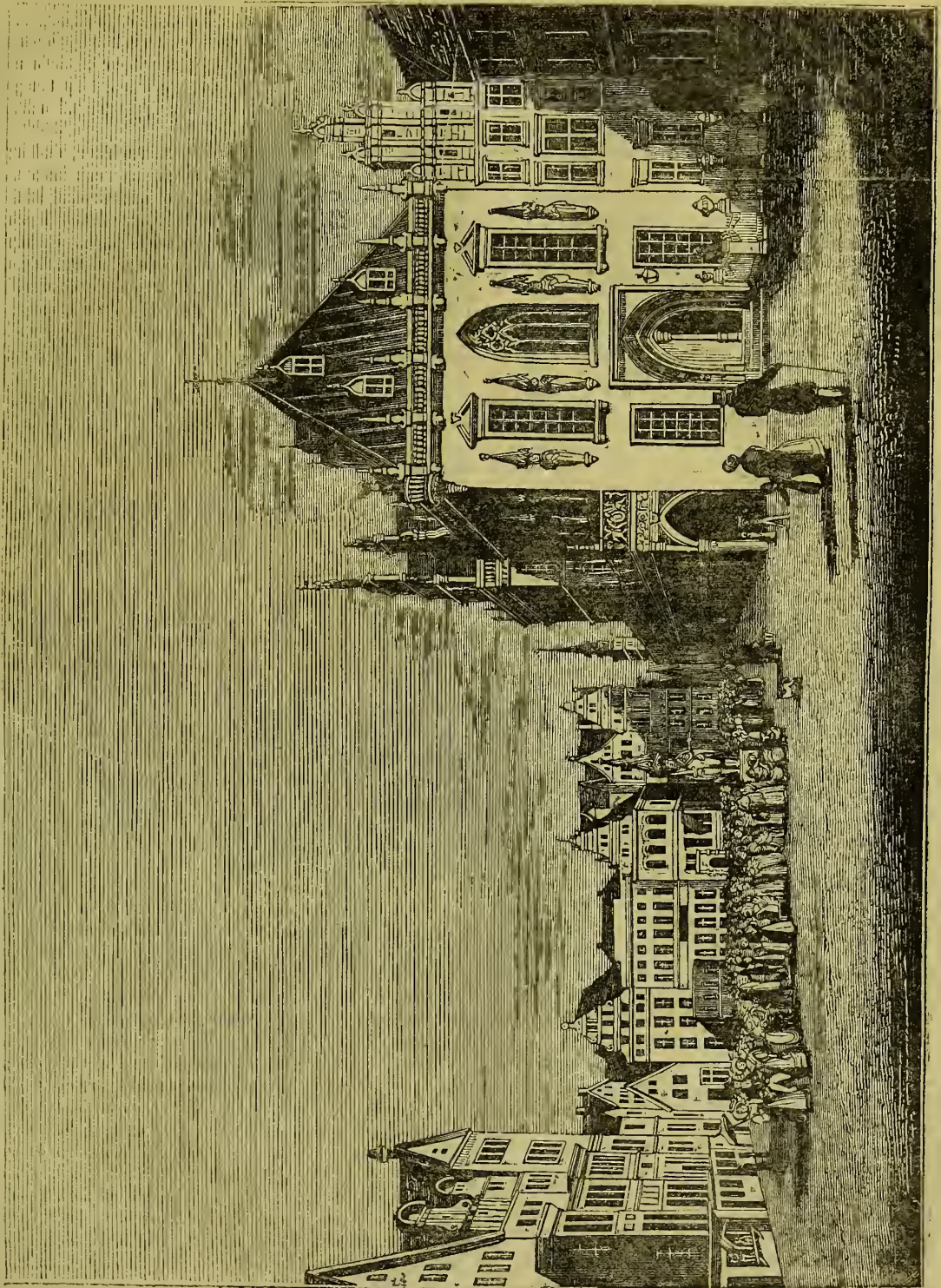
have to boast of. This is the *bley-keller*, (lead cellar,) so called from a catastrophe that once happened to the leaden roof, which having been melted by lightning, run into this vault, giving to it the singular property of preserving dead bodies from putrefaction.

In the market-place—which our artist has selected for illustration—stands a stone statue of "*Rolando*." Holcroft the dramatist asks, in his *Travels in Germany*, "Who is this fabulous Roland; a figure of whom one meets at almost every turn?" We wish, for the information of our readers, we could answer this question, but have searched in vain for some historical notice of "*Rolando*."

The trade of Bremen consists principally in refined sugars, iron, flax, hemp, and linen; but the city is most famous for Rhenish wine, the sale of which is monopolized by the authorities, and can only be purchased at the public vaults. In one of these, we are told in Baron Knigges's *Letters*, written on a journey from Lorraine to Lower Saxony, wine is kept so old, that if to the prime cost the accumulating interest of the money and other expenses were added, the price of each bottle of this long-stored vintage would exceed a thousand dollars! We must, however, remark, in justice to the Baron, that this statement is made simply, unaccompanied by any voucher for its correctness. That some such highly-esteemed liquor is carefully preserved in the public cellars, there can be no doubt; for it is stated that on very particular occasions—especial "*high days and holidays*"—one bottle of it is doled out at the Town-Hall, to a tolerably strong muster of burgomasters and magistrates. This Bremen *ambrosia* is also occasionally administered, in cases of desperate danger, to the sick.

The city of Bremen, though part of a duchy of the same

R. Clay, Printer, Bread-street-hill. April 2, 1836.—Price One Penny.



MARKET PLACE OF BREMEN.

name, provides its own free independent government, and is divided into quarters, over each of which a burgomaster is elected, to preside during his life-time. The police regulations are excellent. In fact, the entire executive system of Bremen is conducted with a degree of order, promptitude, and efficiency, that might be imitated by cities of much larger extent, and higher pretensions, with great benefit.

No. 225.

The chief characteristics of the inhabitants—who amount in number to 48,500—are frankness, hospitality, and contentedness. If they do not possess much refinement of taste, or polish of external manner, they are without the usual concomitants of such accomplishments—desire for luxury and duplicity; and although they preserve almost primitive simplicity in their habits, yet they are not devoid

R

of intellect. Their usual dinner-hour is eleven, but on Sundays they breakfast at six, and dine at ten. All are Protestants, and notwithstanding that the Cathedral belongs to Lutherans, the Calvinistic creed predominates.

The most celebrated men Bremen has produced, are Doctors Olbers and Oldenburgh; the former discovered, from the observatory of which he is director, the planets Pallas and Vesta.

The Museum of Bremen is celebrated for a curious collection of different species of snakes. The library is tolerably well filled. Its origin is not a little singular. "When Lavater's expensive work on physiognomy appeared, three of the inhabitants, exceedingly desirous to read it, proposed to each other to purchase it in common, and peruse it in turn. This suggested the convenience of buying other books, and at last, of clubbing their small libraries, having a common room, and having each a key. Pipes and tobacco could not be forgotten: ice to a Neapolitan is not a more pressing want. Here they came—read, smoked, and meditated,

whenever they had leisure. From this small beginning the society grew, and the spirit with which it has been maintained, the generosity of its members, the ardour of their zeal, and their thirst for inquiry, have been rewarded by the pleasures which knowledge affords, and the applause of surrounding cities."*

Bremen is subject to inundations in winter, and at Christmas 1617, so suddenly did the waters rush into the city, that some thousand head of cattle, and several hundreds of its inhabitants, were lost; but similar accidents were prudently provided against after this misfortune, and by a considerable pecuniary outlay Bremen was so effectually dammed in, that no such disastrous event has since occurred. The last great misfortune recorded to have happened in this town was occasioned by the opposite element—fire. In 1739, a large gunpowder mill exploded, having been struck with lightning!

Our illustration in page 120 represents the public walks of Bremen, which are much frequented by the inhabitants.

W.

DEMOCRACY ILLUSTRATED, OR THE RISE AND FALL OF THE ANCIENT REPUBLICS.

No. III.—CARTHAGE.

MOST of our readers are, no doubt, acquainted with the old and excellent fable of the painter and the lion; but as some of them may not have met with it, we may be permitted briefly to quote its substance.

The fabulist alleges, that the lion and the painter quarrelled about the respective powers of lions and men. As a conclusive argument, the painter pointed to one of his own pictures, in which a man was represented as striding triumphantly over a prostrate lion, which had fallen beneath his courage and prowess. The brief, but pithy reply of the judicious brute to this *argumentum ad leonem*, was,—“Ah! if the lion had been the painter, the picture would have told quite another story!”

Apart from its felicitous humour, there is great value in this fable: it is a storehouse of wisdom to all who read ancient history; and especially to those who read ancient history as written by the Romans. The Roman historians were guilty of shameful partiality towards Rome, and of still more shameful injustice towards other nations; and in no case was the “history,” as written by Romans, more flagrantly unjust than it was in the case of Carthage.

Situated as that country was with regard to Rome, it not only has been libelled by the Roman historians, but, unhappily, its own historians,—whose love of country, and whose personal acquaintance with the actual events of their country's history, would have enabled them to refute the calumnies of their country's inveterate and unprincipled enemy,—have without a single exception perished.

Under these circumstances—seeing that, as the most formidable rival and opponent of Rome, Carthage was the peculiar object of the envenomed misrepresentations of the Roman writers, and on the other hand that the native historians of Carthage are no longer in existence to counterbalance the defamations of Rome, it behoves us to bear constantly in mind while reading the history of Carthage as given to us by the Romans, that we are reading the accounts given by bitter enemies.

Livy, Polybius, and other writers, both Roman and Greek, paint the Carthaginians in the blackest colours; and “*Punica fides*”—Punic faith—has been handed down to us as expressive of every thing treacherous in design, and overreaching in act. We shall find, however, that this very

propensity to treachery was among the most flagrant public vices of Rome herself; and we shall find too, that even had the Carthaginians been as guilty of artifice as the Romans were, they would have been in no slight degree justified by the *lex talionis* which had so high a place in the favour of all heathen nations.

Another charge commonly brought by the Roman writers against the people of Carthage, is that of being excessively attached to the accumulation of wealth. Now, though avarice is a detestable vice, either in the case of nations, or in that of individuals, it is not the less true that the love of commercial enterprise is one of the noblest of national characteristics, and one of the surest foundation stones of national aggrandizement and grandeur; and it is only upon distinct proof of actual avarice that we ought to believe that charge to be true, when we know that other charges made against the Carthaginians by Greek and Roman writers are grossly and obviously unjust. Now the nearest attempt at proof—for in truth it is only an attempt—of the universal and sordid avarice of the Carthaginians, is the assertion of Polybius, that, “Whereas at Rome nothing was so infamous as bribery, and wealth obtained by improper means; at Carthage, the highest employments and dignities of state were openly sold. And yet throughout his own detail of Carthaginian affairs, we find that the only cases in which the high offices were not filled by the ablest and most worthy among the Carthaginians, resulted not from the prevalence of bribery, but from the insane violence of faction—in which violence, Rome's own history more disgracefully abounds than that of any other country under heaven. We have thus no choice but to believe Polybius unjust in his accusation. Both that and the details of his history cannot be true; for the latter flatly contradict the former, and it requires no argument to show the greater probability, (not to say certainty,) that Polybius was guilty of injustice in one accusation, than that he was incorrect in an immense variety of details of mere matter of fact.

Cruelty is another sin of which the Roman writers especially were very partial of accusing the Carthaginians. It is, undoubtedly, a crime of a most disgraceful nature in either a

* “Holcroft's Journey from Berlin to Paris.”

nation or an individual. But we must still bear in mind that the *lex talionis* bore a very different aspect in the sight of Heathens from that which it takes when tested by the divine and beautiful precepts of the gospel. And the history of Rome abounds so exceedingly with instances of cruelty perpetrated by the Romans upon their prisoners, even of the very highest rank, that—even if the Carthaginians were as cruel as they are represented to be,—it is little marvel that they were so when we consider how insolent, cruel, and powerful were their Roman foes. But, in truth, this accusation seems to be not much better founded than others which are brought against the Carthaginians: let us take, for instance, the case of Regulus. Every school-boy is aware that the Carthaginians are said to have put that commander to death under circumstances of such revolting cruelty, that it is positively painful to read of them. Horace, too, called in the aid of poetry to heighten the effect of the alleged Carthaginian barbarity; and the fate Regulus forms the subject of one of the noblest of that poet's odes. But your poets are very prone to ornamenting—so much so, that had we no other evidence of the fate of Regulus than that of Horace's ode, our considering the truth or falsehood of the story would be not a whit more reasonable than to write a treatise on the authenticity of the account given of the assassination of the Pacha Seyd by Gulnare, in Byron's tale of the "Corsair."

The evidence of Horace, then, we may at once pass by; and on turning to historians, we find, firstly, that Polybius and Diodorus Siculus—able writers, and very inveterate against the Carthaginians, make no mention of this barbarity; while the Roman historians, who do make mention of it, give not only various, but actually irreconcilable accounts of it—facts, certainly, which, in other cases, the soundest and most acute critics would allow to amount to the very highest degree of probability of the whole account being a mere fiction of the Roman historians.

Enough has been said to show that we must read the accounts of Carthage, which are derived from its bitter enemies, with all possible caution against being misled. We shall therefore, in our next, proceed to give a succinct account of the rise and fall of that, in very many respects, truly great and wonderful nation.

(To be continued.)

THE PANTHEON, OR CHURCH OF ST. GENEVIEVE, AT PARIS.

It speaks but little in favour of the inventive genius of the present day, that all our most exquisite architectural monuments are copies from those of antiquity; and if there be at any time a departure from the principles laid down by the ancients, that departure is usually censured as deformity, or, at least, as an offence against true taste.

No one can deny that the Greeks and Romans invented a style of architecture that has never been excelled in beauty, and which continues to be as much admired as in the days of Pericles and Augustus; but is the invention of man, so unlimited in other matters, so bounded in this that there can be no departure from the Grecian or Gothic styles that will meet the approbation of men of taste and judgment? Certainly not. Were prejudice to be discarded, and proper encouragement given, no doubt an English style might be invented which would successfully compete with those at present so highly in favour, and be more suitable to a northern climate than that originally designed for a more genial sky.

These observations will apply to all the European nations except Turkey, where little attention is paid to style; even

our Gallic neighbours, so fruitful in inventions of other kinds, show none in this,—their triumphal pillar imitates that of Trajan, their triumphal arch that of Constantine; and other public monuments are in great measure copies of those on classic ground.

Paris possesses but few churches that are remarkable for their beauty, but that of St. Genevieve stands at the head of them by universal consent. It was built by Louis XV. in consequence of a vow made by him during his sickness at Mentz. Many plans were presented by different architects, some of which were exceedingly grand, but that of M. J. G. Soufflot was preferred, on account of its fine proportions, and the improvements it presented on the style of ecclesiastical architecture hitherto in use.

On the site of St. Genevieve stood an old church, dedicated to St. Paul, which was erected in the ninth century by King Clovis. The present edifice is in the form of a Greek cross, 339 French feet in length, and 253½ feet in breadth, at the widest part. The portico is copied from that of the Pantheon at Rome, and is formed of a peristyle of twenty-two Corinthian columns, each five feet and a half in diameter, and fifty-eight high; the carving of the capitals is of exquisite workmanship. The portico, formed by these columns, is surmounted by a pediment, the front of which is adorned with elegant sculptures and colossal figures; its length is 112 feet, and its depth 36 feet; the interior unites the boldness of the Gothic, and the beauty of the Grecian architecture. The three gates at the entrance are adorned with bas relief.

The interior of the church consists of four naves, in the centre of which is the dome. The naves are divided by thirty fluted Corinthian columns, three feet six inches in diameter, and twenty-seven feet eight inches high, which support an entablature of which the frieze is ornamented with foliage: above are the galleries, with elegant balustrades.

The exterior of the dome is circular, consisting of thirty-two columns of the Corinthian order, each three feet four inches in diameter, and thirty-four feet high. These are supported on a circular pedestal, bearing on an octangular base. The cupola is particularly elegant, and the height from the ground to the summit is 282 feet. The expense of its erection was upwards of a million sterling.

The successes of the French revolutionary armies may be in a great measure attributed to the enthusiasm that was excited in the troops by every art that the government could invent. That of changing the church of St. Genevieve into a Pantheon for the erection of monuments to those who distinguished themselves either in the cabinet or the field, was none of the least—it proved a stimulus to great actions of a most powerful nature. For this purpose, the emblems of religion were displaced, and those of liberty substituted, with this motto on the frieze of the monument—"AUX GRANDS HOMMES LA PATRIE RECONNAISSANTE." But as this national edifice was not sufficiently capacious to contain monuments for all who deserved well of their country, Napoleon, when he mounted the throne, limited it to receiving the remains of marshals, cardinals, ministers of state, great officers of the Legion of Honour, and senators.

On the return of the Bourbons, this church again received the name of St. Genevieve, the usual religious services were performed in it, and it was appropriated to the use of the Catholic missionaries.

The views of every man should be directed toward a solid, however moderate, independence—without which no man can be happy, nor even honest.—*Sir Philip Francis.*

No. II.—THE SELF-INSTRUCTOR IN MORALITY.

OF TRUE PLEASURES.

THE amusements of life are as numerous as the vices of the age, the pleasures as few as the virtues. The reason is, the mind of man has something of divinity in its nature. It fixes its eye at once upon the past, the present, and the future; it is ever comparing ideas. The object capable of giving it pleasure must be as delightful as any thing experience has yet tasted, be equal to our previous expectations, and apparently productive of no evil consequence. Can any of the fashionable and so much sought after amusements answer to this character? Wit and humour, wine and music, and all the apparatus of splendour and luxury, will not, after an impartial examination, be found equal to any one part of it. These may contribute to delight, but they are not alone capable of giving it. The Platonic wise man, greatly despising these, seeks for pleasure in the schools of antiquity: he follows her through the fairy scenes of ancient poesy, inquires of the sages of old, sits down with Plato beneath his shade, and wanders up and down the porticos of Athens. At length, when he has wearied himself with laborious researches, he finds he expected more from science than it had to give, and that happiness is no more to be found in the abundance of knowledge, than wisdom in a multitude of words. After having spent the greatest part of life in the severe assiduities of study, he has the mortification to find that he is but a novice in the science; that boundless fields of learning remain yet unexplored, and that he must at length quit the prospect, or perish in the search. Various as the minds of men are, there is reason to suppose they are all to be made happy the same way; otherwise there is room to think they are not capable of happiness here at all. The variety of their inclinations reaches no farther than to dispose them to be variously amused. The man whose heart is replete with pure and unaffected piety, who looks upon the Father of nature in that just and amiable light which all his works reflect upon him, cannot fail of tasting the sublimest pleasure in contemplating the stupendous and innumerable

effects of infinite goodness. Whether, he looks abroad on the natural or the moral world, his reflections must still be attended with delight; and the sense of his own unworthiness, so far from lessening, will increase his pleasure; while it places the forbearing kindness and indulgence of his Creator in a still more interesting point of view. Here his mind may dwell upon the present, look back to the past, or stretch forward into futurity with equal satisfaction; and the more he indulges contemplation, the higher will his delight arise. Such a disposition as this seems to be the most secure foundation on which the fabric of pleasure can be built.

Next to the veneration of the Supreme Being, the love of human kind seems to be the most promising source of pleasure; and it is a never-failing one to him who, possessed of this principle, enjoys all the power of indulging his benevolence; who makes the superiority of his fortune, his knowledge, or his power, subservient to the wants of his fellow-creatures. It is true, there are few whose power or fortune are so adequate to the wants of mankind, as to render them capable of performing acts of universal benevolence, but a spirit of universal benevolence may be possessed by all; and the bounteous Father of nature has not proportioned the pleasure to the greatness of the effect, but to the greatness of the cause. The contemplation of the beauties of the universe, the cordial enjoyments of friendship, the tender delights of love, and the rational pleasures of religion, are open to all; and they all of them seem capable of giving real happiness. These being the only fountains, as far as appears to us, from which *true* pleasure springs, it is no wonder that many should be compelled to say they have not yet found it, and still cry out, "Who will show us any good?" They seek it in every way but the true way; they want a heart for devotion, humanity, friendship, and love, and a taste for what is truly beautiful and admirable.

No. III.—POPULAR SUPERSTITIONS.

(Continued from page 119.)

Or atmospheric appearances, to which the absurdity of mankind has attributed an ominous or malignant nature, we have spoken somewhat fully in a recent number of the "GUIDE TO KNOWLEDGE," in describing the "Spectre of the Brocken." It will now, then, suffice to give some specimens of the *artificial* causes of superstitious terror; and in so doing we shall avail ourselves of the anecdotes in works to which, probably, the majority of our readers have not ready access. Sir Walter Scott, among the numerous labours with which he has provided almost equally for the delight and the instruction of myriads of readers, has bequeathed us an elaborate and masterly treatise on "Demonology and Witchcraft." His early reading, and indeed the natural bias of his mind, led him into, perhaps, some deep and laborious investigation of the actual facts upon which both the more popular and the more recondite superstitions are founded, than any other writer in modern times, at least, has ever made. In the course of this investigation, he discovered a vast variety of simple facts, which,

simple as they are, most satisfactorily explain superstitions which had previously defied the scrutiny of the superficial, and excited the terror of the weak. Though these anecdotes are related by that illustrious author in that vivid yet various manner, of which he was so consummate—we fear we must say so inimitable—a master, they all have the same tendency, viz. that of showing that even the most plausible superstitions have invariably a perfectly natural, and, generally, extremely simple explication.

Previous to giving—briefly, of course, and in our own language—some of the most striking and graphic of these anecdotes, we had better, perhaps, remind our readers of the strange death of the "Musical Small-Coal Man," immortalized in the pages of the at once shrewd observer and classical writer, Addison.

The "Musical Small-Coal Man" was a very humble tradesman. Industrious in the pursuit upon which he depended for his subsistence, he was at the same time blessed with considerable taste for literature, and with a by no means contemptible acquaintance with many of its branches. To this very desirable superiority of intellectual

culture, he added a very great musical genius; not only playing at sight, and on various instruments, many of the more difficult works of other composers, but even composing short pieces himself, in a style sufficiently good to obtain the approbation of some of the most distinguished judges of his time and country. "The Spectator" was at this time in the very height of its popularity and influence; and Addison, who was always ready to aid any one who was not likely to rival himself, spoke in such warm terms of commendation of "The Musical Small-Coal Man," that the company of the humble but gifted and accomplished tradesman was, eagerly sought by very many persons as superior to him in attainments as in social rank and possessions.

Among the friends thus acquired by our musician, there were some who were as enthusiastically attached to the "divine art" as he himself was; and an amateur concert was at length established in the immediate neighbourhood of his residence. Ventriloquism, which is now so well known and so perfectly understood, was very little known; and it was one of the—of course numerous—matters with which the praiseworthy but humbly situated tradesman and student had no kind of acquaintance. At one of the weekly meetings of the musical society to which we have made allusion, a gentleman skilled in ventriloquism determined to amuse himself with the superstitious credulity which was the most prominent among the very few weaknesses of the "Musical Small-Coal Man." Accordingly, in the midst of the evening's amusement, the gentleman, in the hollow and impressive tones peculiar to ventriloquism, warned the Small-Coal Man, by name, that on a certain day he should "surely die." The immediate effect of this unexpected and startling announcement was, the illness and dread of the credulous man being so excessive, that he was obliged to be instantly conveyed to his home. Alarmed at so excessive a terror, his friends tendered the most complete explanation of the circumstance by which he had been so much shocked—but all was in vain. He rapidly sickened; and, in spite of the best aid of the faculty, and the most tender attentions of his sympathising friends, *the prediction caused its own fulfilment: the man actually died at the time named by the ventriloquist!*

We now turn to those cases of artificial illusion in which the process *has* been discovered, but in which, had it remained concealed, the individuals upon whom the impositions were practised, and all others who were acquainted with the *results*, but not with the *process*, would have lived and died in the belief of supernatural agency.

In the castle of a certain Hungarian lord, there was one room which had the bad reputation of being haunted. Most castles have some one apartment similarly maligned; and in most cases, as in the one before us, the room which is once pronounced to be "haunted," is forthwith abandoned to rats and spiders, and very sedulously avoided after nightfall by ignorant persons of both sexes and of all ages.

The "haunted" room of the castle to which we allude had been for some time abandoned on account of its, in Scotch phrase, "uncanny" character, when, the noble owner giving a grand entertainment, his vast abode was so crowded by guests that it was necessary to put even the "haunted" room into requisition. Among the visitors was an officer of hussars, highly distinguished for his utter contempt of every thing in the shape of danger; and the noble host selected him as the most fitting of all the assembled company to try conclusions with the disagreeable and ghostly tenants of the haunted chamber. On being made acquainted with the state of affairs, the gallant officer very cheerfully agreed to accept of the proposed accommodation; but while he very sincerely professed his unbelief in the romantic nonsense

with which timid and ignorant people are so prone to make themselves and others uncomfortable, he good humouredly hinted that he had a very decided partiality for undisturbed sleep, and that, therefore, if any one should deem fit to disturb him by way of making trial of the strength of his nerves, he trusted it would not be taken amiss if he should welcome the intruder with a brace of bullets. It was agreed on all hands that the gallant officer ought by no means to be disturbed by mortal intruders; and it was pretty evident in the countenances of the majority of the company that it was sufficiently probable that he would find quite sufficient employment in repelling the attentions of *supernatural* intruders.

At the conclusion of the evening's festivities, our gallant friend was shown to the so styled haunted apartment; and as he felt not quite convinced that some of the "ryghte merrie companie" might not attempt to play upon his feelings, he laid his pistols carefully loaded within reach, and allowed his lamp to remain burning.

So little did the officer, accustomed to treat real danger with contempt, allow himself to be disturbed by the superstitious tales told about his chamber, that he was scarcely in bed when he fell fast asleep. He was awakened however by music, and starting up in bed he saw at the farther end of the apartment three ladies grotesquely dressed, who sung a *requiem* to the accompaniment of the music. For some time the officer was delighted with the performance, both instrumental and vocal; but as both continued in the same strain, he at length grew wearied. "Mighty well, ladies!" he said; "but if it make no material difference to you, I shall be happy if you will change the tune." Of this polite request the musical ladies did not deign to take notice, but continued to sing on in the same tune and the same words until the patience of their auditor was fairly exhausted; and, after having iterated and reiterated his orders for their departure, he assured them, in the most solemn terms, that if, after he had counted twenty, they continued to annoy him, he would most infallibly fire at them. Of this threat the ladies however took no more notice than they had previously bestowed upon his entreaties, but continued, quite coolly, with their vocal exercise. Made at length quite furious by the utter contempt with which he was treated, he cocked his pistols, levelled, and fired. To his infinite astonishment, when the smoke cleared away, there sat the ladies still, perfectly uninjured, and singing on quite as coolly as if nothing had happened. The officer was a practised and masterly shot, that his pistols had not been tampered with he was positively certain, and equally certain that there, in despite of having been fired at, sat the three musical ladies. Brave as he was, the circumstance so dreadfully startled him, that he was for some weeks too ill to be able to quit his bed.

Now, had this affair never been explained, here would have been a treasure for the silly lover of the marvellous! The unquestionable courage of the officer, tried in many a well-foughten field, his known contempt of superstitious legends, and the absolute illness caused to him simply by alarm, would have made a host of converts to the comfortable doctrine of ghosts and hobgoblins. But, alas! a matter of fact proof was tendered to which neither the officer nor any one else could refuse to yield

"faith and full credence:"

the female choristers were not in the officer's room, but in an adjoining one, and he fired not at them, but at the reflection of them thrown into his room by means of a concave mirror.

An American writer, who has very cleverly treated upon

delusions and superstitions, relates a very singular case, which strongly shows the absurdity and mischievousness of attributing to mere supernatural power whatever we cannot at once solve by known natural causes.

"A lady of advanced age was in an extremely weak bodily condition. Sitting one fine afternoon in company with a young friend, she suddenly observed a brilliant flash of light which illuminated the whole room in which they sat. A second and a third time, the same vivid and unaccountable blaze of light made its appearance; and at its third disappearance, the poor lady exclaimed that the flashes of light were 'tokens' of her approaching death. Aged, and extremely feeble, it was, in truth, not at all unlikely that her light of life was upon the eve of being extinguished; but it was not from the cogent premises of age and illness that the ill-educated lady predicted her approaching decease, but from the *three*, (that pet number of superstitionists!) appearances of a light for which she could not satisfactorily account on any other than a superstitious ground. And so excessively was she alarmed by this simple occurrence, that her malady, which probably would not have prevented her from surviving for some months longer, was so dreadfully increased

that in a very few days she actually died. All attempts at reasoning with her were merely and entirely thrown away:—she had seen three flashes of light—and that, in her own phrase, was enough: she felt entirely convinced that she had received a supernatural token of her speedy decease, and the consequence of this belief was, what we have stated, her death."

A very short time after the unfortunate lady had thus frightened herself into the grave, the gentleman from whom we abridge this account chanced to call upon some young students who lived in a house near that occupied by the deceased lady; and as he entered their room he found that they were amusing themselves by reflecting the light of the sun into various houses, by means of a large looking-glass. Here then was a ready and complete solution of the supernatural mystery, by which a very worthy, but weak-minded and ill-educated lady had been frightened to death; and thus a mere boyish freak, a freak which almost every child has practised, or seen practised, ever since glasses were first invented, was the cause of what ignorance set up as an inscrutable mystery.

(To be continued.)

No. I.—SELF-INSTRUCTOR IN AGRICULTURE.

IN a future paper upon this subject we shall avail ourselves of some of the innumerable statistical documents accumulated by modern industry, to show the vast improvement which has taken place in the agriculture of this country, as manifested by the abundant and valuable productions of districts, which, comparatively speaking, but a few years ago were either wholly uncultivated, or cultivated with scarcely any benefit either to the farmer or to society at large. But our present business is rather with the principles of agriculture than with its history; and to the former we shall for the present confine ourselves.

The nourishment of vegetable productions, upon which their growth and increase depends, is governed by chemical principles; it is, therefore, upon chemical principles that the farmer must proceed in adapting his manures to the nature of his soil, and both to the nature of the crop he wishes to produce. The manure which will improve a light sandy soil, will deteriorate a stiff clay, or even loam; and the land in which one kind of seed will infallibly rot, will produce most abundant crops of another kind. Now, though there are many very good practical farmers who know nothing of even the simplest rudiments of chemical science, they are good farmers, not in consequence of their want of acquaintance with chemistry, but in despite of it. It is very obvious that, however unconsciously, he who farms well and profitably, must farm in accordance with sound agricultural (*i. e.* agricultural-chemical) principles. Being in his own person ignorant of these principles, he can only adapt his practice to them in one of two ways;—either repeated trials and many failures have taught him the manure best adapted to his soil, and the crop best adapted to his soil thus manured, or he implicitly "does as he sees others do." The stoutest haters of "theory," the most sturdy opponents of the instruction of "practical" men in the principles by which their whole practice is to be governed, and as it were inspired, will scarcely venture to say that they would look with very comfortable feelings upon the blind, though gigantic efforts of an agricultural empiric, struggling and wasting his capital, year after year, and only hitting upon a profitable course of operations, after having tried in succession every description of

practice except the right one! The humanity which is so prominent and so honourable a trait in our national character would make any one blush to advocate such a course of training for the English farmer. What remains, then? Clearly, one of two things, to "do as he sees others do," or to make himself master of the first principles of chemistry, as applicable to agriculture, and thus to have a constant guide in a mere routine course, or an infallible test in an experimental one. If hundreds of books and thousands of speeches did not prove the contrary, it would seem, *prima facie*, certain that no one would be found to say that a knowledge of principles is infinitely preferable to a dependence for example upon the practice of others. And, setting aside all experimental agriculture,—which, to say the truth, we should rather see pretty much confined to opulent landowners than commonly practised among renting farmers,—what an inferior chance of success has the man who can only imitate others who are quite as likely to go wrong as himself, to that which is possessed by the man who is acquainted with the principles upon which the nourishment and increase of his crops depend, and has his process reduced to a certainty—the variations of season alone excepted! And when, instead of merely using the soil as it is, we would alter it; when we could cause it to evolve a greater portion of one kind of gaseous nourishment, and a lesser portion of another, how indispensable is a knowledge of sound principles—unless, indeed, we would have several generations of "practical" men utterly ruined in futile, because ill-directed labours!

How convertible the soil is, a single fact will abundantly suffice to show. The fine estate of the wealthy and venerable Mr. Coke, of Norfolk, abounded some years ago with tracts of sandy soil—excellent land for the increase and accommodation of wild rabbits, but to a "practical" agriculturist absolutely worthless; now this very same land is perfectly proverbial among all who take an interest in English agriculture, for its wonderful fertility. True it is, that Mr. Coke has expended immense sums of money in converting the soil; but it is no less true that he might have expended those sums multiplied by a thousand without

growing a single turnip or a single ear of wheat, had he not done it judiciously—*i. e.* on sound principles of chemistry, as applicable to the nurture of vegetable life.

Contenting ourselves with this single instance of the value of scientific knowledge to the agriculturist, we shall now proceed to the principles of agricultural chemistry; and first, let us examine the nature of vegetables, and the process by which we are to cultivate them profitably; and, except as to the varieties of season, over which finite though vain-glorious man can exercise no control, with certainty of being adequately rewarded for our employment of capital, skill, and labour.

To chemistry belongs the task of analysing vegetable substances—that is to say, of reducing them into the various separate elements of which their whole consists; and in a future paper we shall treat of this branch of chemistry, and show the nature of some of the most important vegetable productions, available either as food for man and the domestic animals, or for the purposes of manufacture. At present we have to do with the *growth* of vegetables, rather than with their nature or uses. The first point to which we have to direct the attention of the reader, is the important operation called *germination*; that operation, namely, by which the seed is converted into a plant.

The first particular upon which the farmer or gardener has to exercise his vigilance and skill is the goodness of his seed. The seed should be perfectly well saved, *i. e.* perfectly mature; and great care must be exercised as to the seed being true. Mr. Cobbett, in his amusing and useful “Cottage Economy,”—the best of his works, because the most free from the political bitterness which but too generally detracted from his usefulness,—relates that he purchased seed which ought to have produced him, and doubtless would have produced him, twenty tons weight of sugar-loaf cabbages, of which he thought very highly as winter fodder for cattle; but much of the seed being bad he scarcely realized a fourth of that crop. Now to the perfection of the seed it is not only necessary that it should proceed from the best plants of the kind, and that it should be gathered when perfectly fit, but also that the plants intended to be kept for seed should stand in a situation where they are not likely to have the pollen of other plants carried to them by the wind; for where this happens to them, they are very commonly so much impregnated with the nature of other plants, that their seed produces a completely bastard plant, in many cases almost entirely destitute of the properties for which the genuine plant is valuable. Due care being taken to have the seed true, and thoroughly ripe when gathered, the chances of a bad crop, are very few. Indeed, some skilful practical farmers assert, that the destructive disease in wheat called the smut,—in which the ears contain a black sooty dust instead of firm and golden coloured grain,—as well as blight, is to be wholly avoided by having the seed perfectly ripened. Perhaps the opinion is not quite well founded as to blight, which in our opinion depends rather on the atmosphere than on any thing over which man can exercise any control; but there are many and cogent reasons for believing that it is quite correct so far as the smut is concerned.

The seed being procured perfect of its kind, the next consideration is to plant it at a proper time of the year, and in a soil fitted for its nourishment. Upon these points those who are not acquainted with them by experience, will of course refer to some of the elaborate and excellent treatises which both scientific and practical men have written.* Both points

demand details utterly incompatible with the limits of a work like this.

Besides goodness of seed and fitness of soil, the process of germination demands for its accomplishment the exclusion of light from the seed—whence it is that those who sow grass seed without harrowing it almost invariably have a bad return for their labour and capital; sufficient heat—whence the importance of the time of year at which the sowing is performed; moisture—without which the seed cannot possibly sprout, as is seen by the length of time during which the seedsman or farmer can preserve it, by simply keeping it perfectly dry; and air—the exclusion of which is as fatal to the germination of plants as to animal life itself. Even these preliminary and very indispensable conditions require very great care and study on the part of the agriculturist who would make his pursuits profitable to himself or to society. And it is to be observed, that though, for the sake of lucid arrangement, we shall postpone to a future paper a brief account of the kinds, uses, and modes of action of manures, a knowledge of them is as indispensable to the cultivator, at the very outset of his operations, as skill in complying with the preliminaries of which we have spoken; for, on the one hand, however well-fitted land may for a time be for a particular kind of crop, that fitness will be gradually decreased, and in the course of time utterly destroyed, unless the particular portions of the earth which are exhausted by the crop be from time to time renewed by the use of appropriate manures in sufficient quantity; while, on the other hand, it may be absolutely necessary to the prosperity of the cultivator that he shall grow a particular kind of crop for which his land is naturally unfit, but which, by a sound knowledge of the theory of the growth of plants, and of the nature and mode of action of the various animal and vegetable manures, he can for the time make fit for the particular crop, while he can easily again alter its nature, by the use of other manures, or by other kinds of crop.

No greater spite can be done to a noble nature, than to be praised by a wrong person, and in the wrong place.—*Ben Jonson.*

Be kind to your friends, that they may continue such; and to your enemies, that they may become your friends.—*Cleobulus.*

The impostor employs force instead of argument; imposes silence where he cannot convince; and propagates his character by the sword.—*Junius.*

CITY OF CANTON OR QUANG-TOHE-FOO, IN CHINA.

It has already been observed, that the jealous policy of the Chinese has excluded Europeans from every part of that extensive empire except the city of Canton; and no part of this city is accessible to them, except the suburbs, without special permission, which is with difficulty obtained.

The city itself is surrounded by a lofty wall, six or seven miles in circumference; but much of the space that it incloses is appropriated to fish ponds and pleasure grounds. Indeed,

* The “Gardening Encyclopædia” of Mr. J. C. Loudon, who unites long experience to great science, will be found invaluable to all young

gardeners and farmers; indeed we fear there are few old ones who do not need its admirable instructions.

when we consider that not more than one-third of the ground within the walls is covered with dwellings, and that these dwellings are not more than one story high, the population of the fortified part cannot be great. But the suburbs are exceedingly extensive and populous, and the river which washes its walls is covered with boats, for four or five miles, in which reside multitudes of families, who have no habitations on shore. On the wharf of the river, which is commodious and pleasant, stand the factories of the different European nations. In these reside the supercargoes belonging to the respective companies, who are appointed to dispose of the cargoes brought to market, to supply the ships with others for Europe in return, and, during their absence, to contract with the merchants for such articles as may be judged necessary for the next fleet.

Including the inhabitants of the suburbs, and of the boats on the river, the population of Canton may be estimated at a million and a half—an immense assemblage of human beings, exceeding even that of London.

As Canton is seldom entered by Europeans—and when permission is granted, curiosity is under restraint lest jealousy should be excited—we know little of its interior. The streets of the suburbs are long and narrow, and filled with shops on each side, and the burning rays of the sun are excluded by an awning stretched over them. At the end of each street is a barrier, which is shut every evening. No carriages of any kind are used in Canton, all burdens being carried by porters across their shoulders on bamboos.

The principal exports from Canton are, nearly thirty millions of pounds of tea annually, of which the far greater part is taken by the English; nankin, so called because first made at the city of Nankin, from cotton, whose natural colour is that of the stuff; silks, mother of pearl, tortoiseshell, tutenagree—a kind of white metal, porcelain, &c. Great Britain and her eastern settlements send to the port of Canton—woollen cloths, cotton, opium, betel nut, furs,

watches and tin. The trade between Canton and the rest of the world is regulated by a council called Hong, consisting of twelve or fourteen men of rank and wealth: this council superintends the disposal of all foreign cargoes, and provides those to be exported.

The Chinese are, in general, extremely fraudulent and deceitful in their dealings, thinking it no disgrace to overreach their customers, if possible; yet there are some men of probity among their merchants. To the honour of England, the confidence reposed in our East India Company is so great, that bales of goods, with their mark, frequently pass unopened from hand to hand, through a great many owners.

The pride of the Chinese is so great, that while they receive for their commodities a great number of articles of the first necessity to them, and a large sum in silver annually, they consider other nations as highly favoured to be permitted to traffic with them; and frequently threaten, on any slight offence, to withhold this permission altogether. It is probable that, if they were so to do, they themselves would be the greatest sufferers.

A dreadful calamity happened to this vast trading city November 1, 1822, which threatened destruction to the persons and property of thousands; and actually destroyed the latter to an immense amount. A fire broke out in the suburbs on the evening of that day, which, in consequence of the violence of the wind and the superstitious apathy of the inhabitants, baffled all the attempts of the European residents to extinguish it. Nothing was spared on their part to arrest the progress of the devouring element, and great quantities of goods were removed to a place of safety: but all their exertions could not prevent the destruction of from fourteen to sixteen thousand houses, and all the foreign factories, with property to the amount of five millions sterling. The loss of the East India Company was estimated at 500,000*l*.

EDDYSTONE LIGHTHOUSE.

THE necessity of the erection of lighthouses on dangerous coasts was very early impressed upon maritime nations; and so well has their value been understood by all countries, that the fiercest conquerors, who unhesitatingly inflicted the most savage injuries upon the people they conquered, have, we believe, without a single exception, held these edifices sacred; a natural, though perhaps partly unconscious, piety preventing them from injuring edifices so important, not to this or that nation, but to *mankind*.

Although both in parliament and through the medium of the press, exceptions have been from time to time taken to the system by which our lighthouses are kept up, it cannot be denied, even by the warmest opponents of that system, that these important edifices are highly creditable at once to our spirit, liberality, and science. Among the most remarkable of those excellent structures is that which is erected on one of a knot of rocks which are situated in the English Channel, at about fourteen miles S. S. W. from Plymouth. This rock and its fellows are called the Eddystones, probably from the eddy or whirlpool formed by the waves as they break upon them; and as they are completely invisible at high water, they were for ages very fatal to vessels sailing to and from England at that part of the coast. The frequency of these accidents made the erection of a lighthouse to warn the mariner of his approach to the

Eddystones at once a very desirable and very difficult achievement. Propositions were frequently made for this useful work, but nothing was done towards actually commencing it until the year 1696, when Mr. Winstanley, a private gentleman, but exceedingly well skilled in mechanics, undertook the work, and completed it in the comparatively short space of four years. There is some considerable diversity in the descriptions which exist of this structure; but the best authenticated accounts state it to have been a stone building, one hundred feet high, and in shape a polygon. Great as the height of the building was, the sea in very tempestuous weather frequently dashed completely over it, and many practical engineers gave it as their opinion that sooner or later some violent storm would sweep away the building altogether. Mr. Winstanley held a very different opinion; for so confident was he of the surpassing strength of his work, that he more than once expressed his desire to be in "during the most violent storm that ever came from the heavens." In this wish, if it were sincere, and not a mere unreflecting boast, he was but too fatally gratified.

On the 26th of November, in the year 1703, there arose the most terrible storm that had ever raged in England; and during the night the Eddystone lighthouse was completely swept away. Singularly enough it happened that Mr. Winstanley was at the time residing in the lighthouse for the

*Eddystone Lighthouse.*

purpose of superintending some repairs; and he as, well as the light-keepers, perished by this calamitous occurrence.

For a time the fatal destruction of this edifice deterred even the boldest and ablest engineers from attempting the erection of a new one: but the *Winchelsea*, a valuable vessel homeward bound from North America, being wrecked by striking upon the Eddystone, parliament interfered, and a new lighthouse was erected by Captain Lovell. The new building was circular, and built of wood instead of stone. It was commenced in 1706, and completed in 1709. From the latter year till 1755, it remained perfectly safe; though during that period it had to encounter several storms scarcely less violent than that which had destroyed its predecessor. On the second of December, in the year 1755, this structure was set on fire by accident, and totally destroyed.

The proprietors now applied to Mr. Smeaton, a very eminent civil engineer, and that gentleman commenced his

gigantic task in 1756, and in 1759 had it completed and lighted: it is of stone, circular in shape, and gradually decreases in circumference from the base to the summit—a shape which was suggested to the able architect by the trunk of an oak. If we may judge from the violent tempests which this noble building has successfully and without the slightest injury withstood, there is every probability that it will continue as safe for many centuries to come. In 1762 there was a remarkably violent storm; so violent, indeed, that the people of Plymouth and the adjoining parts were terribly alarmed throughout the night for the fate of the lighthouse, and one individual who was especially qualified to judge was heard to say, that if it could stand that storm it might bid defiance to any weather. It *did* stand it, so well, indeed, that not even a pane of the glass of its lantern was injured.

DEMOCRACY ILLUSTRATED, OR THE RISE AND FALL OF THE ANCIENT REPUBLICS.

No. III.—CARTHAGE.

(Continued from page 123.)

CARTHAGE, subsequently so powerful and detested a foe to haughty Rome, took its rise from a colony of Tyrians, who settled there when driven from their own country by distress; and for a considerable time paid an annual tribute or rent for the land which they were permitted to occupy. Though, when they founded their city, they were poor as to actual commodities, they had two grand possessions—industry and commercial ability; and these soon made them so prosperous, as to excite the jealousy of their neighbours. These latter, envying the wealth of their tributaries, endeavoured

to extort some portion of it in the shape of increased tribute; the Carthaginians, on their part, determined to put an end to the tribute altogether. Firmly united among themselves, and possessing great commercial connexions as well as great wealth, the Carthaginians were more advantageously situated in this struggle than would at first sight appear to be the case. They had the command of the sea, while their opponents were for the most part situated inland; and those opponents having many separate objects, were easily bribed to fight against each other. The result of a

contest under such circumstances may easily be imagined. By playing off their enemies against each other, the Carthaginians not only made themselves free from tribute, but actually extended their authority, and made tributaries, for nearly two thousand miles upon that continent on which they had so recently resided as distressed and despised adventurers.

For a long time the Carthaginians devoted themselves to extending their commerce, and increasing their wealth; their wars, whether offensive or defensive, being left to foreign mercenaries, of whom they subsidized vast numbers.

Unfortunately, as their wealth became more vast, their ambition became both more grasping and more unprincipled, and they spent vast sums of money in maintaining armies for the reduction of Spain and Sicily; though their most obvious policy was to have devoted those sums to increasing their fleets. Their error on this point is, in truth, wonderful. Their whole consequence arose from their extensive commerce; they were essentially a maritime power, and yet they expended upon the support of foreign mercenaries sums of money which would have enabled them to protect their commerce and colonies, and to render it all but impossible that they should ever be injured or insulted by Rome, whose whole coast lay open to reprisal, and who was so utterly without a navy, that the first Roman ship of war was actually built on the model of a Carthaginian galley, which was accidentally cast upon the coast of Italy. Even in this single point of view there is much to blame in the policy which led the Carthaginians to neglect their navy, and to compose even their armies exclusively of foreign mercenaries.

It is very evident, from the whole history of Rome, that that ambitious nation required little or no provocation to induce it to make war upon a people whose prosperity excited at once their cupidity and their jealousy; but had such provocation been requisite, the conduct of the Carthaginians, or rather of their hired cut-throats, Greek as well as African, was excellently calculated to furnish it. Partly from the provocation thus given, and partly from the insatiable lust of both gold and dominion, which was so prominent a characteristic of the Romans, arose that terrible and obstinate war which is known in history by the name of the first Punic. For the details of this war, we must refer our readers to history; our limits compelling us to confine our sketches to those great particulars which had a leading and potent effect in causing the downfall of the republic.

Even during the first Punic war the Carthaginians would have derived infinite advantage from paying greater attention to their navy, and less to hiring and maintaining mercenary troops; for, imperfect as their naval forces were, they were so serviceable, that the Romans from that time forth, acting upon the wise maxim, "*Fas est et ab hoste doceri*," never rested till they had organised a powerful navy. But it was at the conclusion of the first Punic that the Carthaginians were the most painfully made aware of the state of that nation, which depends not upon "native swords and native ranks," but upon mercenaries, who, as they sell their friendship for gold, may very readily be induced to become enemies when that gold is no longer forthcoming.

One of the conditions of the treaty by which the first Punic was terminated was, that the Carthaginians should evacuate the island of Sicily. Gesco, the Carthaginian commander there, saw at a glance the great mischief which was likely to arise from his sending, *en masse*, the multitude of disorderly fellows whom he commanded into a country like Carthage, where every citizen was trained wholly to the arts of peace; and there was, consequently, nothing like an

efficient check to the licentiousness and violence of trained soldiers, familiar with all the horrors of war, and exceedingly desirous of riot and rapine. In order to guard against the danger which he thus clearly foresaw, Gesco, instead of sending the whole of the mercenary troops to Carthage at once, sent them over in comparatively weak subdivisions, in order that they might be separately paid, and sent to their respective countries. Unfortunately the Carthaginians wanted either the will, or, which is more likely, the means to take advantage of this obviously sound policy of Gesco; and instead of paying off each division separately, and sending each home as soon as paid, allowed division after division to arrive, until the whole body was reassembled; and then, with a want of common sense, which would be incredible if not proved by the most indisputable authority, humbly solicited from this great and powerful body an abatement of arrears, which no one of the smaller bodies could have refused to their peremptory demand.

As might have been expected, the mercenary troops laughed to scorn all entreaties for an abatement of their demands, and insolently threatened forcibly to pay themselves. Gesco, whose policy had been so unwisely disregarded by the Carthaginians, now used his great influence with the troops, and had well nigh persuaded them to accommodate the matters in dispute, when Spendius and Mathos, two daring and avaricious incendiaries, interposed their mischievous talents, and so effectually appealed to the worst passions of the soldiery, that they broke off all negotiations, and kindled a war, which lasted for four years, during which the Carthaginian territory was such a scene of devastation and slaughter, as cannot, even at this remote distance of time, be read of without sentiments of horror.

The two most powerful families in Carthage at this time were the Hannonian and the Barcan; and, as is usually the case with parties who are thus rivals for the chief power, between these two families there subsisted a bitter hatred. Hanno, the head of the one family, and Hamilcar Barcan, the head of the other, were naturally looked to when the mercenary troops had commenced their threatened violence within the Carthaginian territory; and Hanno, either from being at that time more popular than his rival, or from having been more active in intriguing, was entrusted with the command of such hirelings and native volunteers as could be raised on the spur of the occasion.

Hanno, however, of whom Polybius makes most contemptuous mention, suffered himself to be surprised and out-manceuvred by the enemy. His originally numerous army was dreadfully reduced; and even his camp, with all his military stores and implements, was captured by the enemy.

These disasters convinced the Carthaginians that their safety would be best consulted by intrusting the command to Hamilcar, who had greatly signalled himself in the war with the Romans. He was accordingly made chief commander, but of an army of only about ten thousand men, while the forces to which he was opposed amounted to not fewer than seventy thousand. Nor was the scanty number of his troops the sole or even the worst evil against which Hamilcar had to contend; for Hanno, his jealous rival, though deprived of the chief command, was still intrusted with the command of a separate body. The consequence was, that each of the rivals thwarted the other; and the Carthaginians at length became so well convinced of the impossibility of the war being brought to either a speedy or an honourable conclusion while the rivals were thus brought into collision, ordered Hanno to vacate his command. From this time Hamilcar pushed the enemy from post to post, and obtained advantage after advantage, until he had completely defeated

one division, forty thousand strong, under Spendius, and blocked up the other division, which was commanded by Mathos, in the city of Tunis.

Here the new lieutenant of Hamilcar most disgracefully allowed himself to be surprised; and besides many of his troops being slain, no fewer than thirty of the principal men of Carthage were taken prisoners by Mathos, and savagely put to death by crucifixion. The lieutenant being himself among the number of those who were taken prisoners, Hanno was once more entrusted with the joint command, and a decisive action soon after took place, which the military genius of Hamilcar made a complete triumph to the Carthaginian arms.

In the foregoing sketch, brief as it is, our readers have seen that much injury arose to Carthage from her neglect of her marine, and from her excessive propensity to carrying on foreign wars;—a propensity doubly dangerous, from her excessive reliance on mercenaries. They have seen, too, that in the enmity of the two leaders, the Carthaginian army had a source of great loss and difficulty. Of the ill-consequence of dissension between the leading men of a state, we shall presently have to furnish a still more striking instance.

Hamilcar, after gloriously putting an end to the war between the Carthaginians and their rebellious mercenaries, assumed the chief command of the Carthaginian force in Spain; and after obtaining many advantages, was there slain.

His son-in-law, Asdrubal, succeeded him in the command; and, very naturally, desired to train young Hannibal, Hamilcar's son, in the same course in which his father had so signally achieved honour to himself and advantage to his country. When his proposal to this effect was made at Carthage, Hanno, with a most base and detestable vindictiveness, made a long and laboured speech against it. Not content with having on the most important occasions thwarted Hamilcar, even at the risk of utterly ruining the republic in so doing, he now boldly charged the whole of the Barcan family with undue and mischievous ambition; and, as if envious of the fame which Hamilcar had acquired, made the most virulently strenuous endeavours to prevent his son Hannibal from even taking the first step towards a like usefulness and a like renown.

It is, happily for mankind, one of the properties of envious malignity that its violence is even greater than its hypocrisy; and Hanno so openly showed that his opposition to the proposed employment of young Hannibal arose not from public spirit, but from private hate, that his opposition was wholly ineffectual, and young Hannibal was allowed to join his brother-in-law in Spain, and there to commence that career by which he achieved an everlasting fame.

On joining the army, Hannibal, as we learn from Plutarch, was distinguished, not by the luxuriousness of his accommodations—as is but too usually the case with the wealthy youth of all nations—but by the excellence of his arms and horses, and by his indefatigable industry in learning and practising every thing requisite to form at once the brave and efficient soldier and the able and victorious commander. Young and robust, his industry soon procured him the excellence at which he aimed; and when, a short time after, he had joined the army, his commander and brother-in-law, Asdrubal, was assassinated by a Gaul, to whom he had given some real or imaginary cause of offence, Hannibal was by the army made its commander *pro tempore*. The senate of Carthage unanimously confirmed his appointment; and Hannibal, into whose mind, from his earliest years, his father had instilled a bitter and unquenchable hatred to Rome, now exerted himself to terminate the conquest of that part of Spain which lay between New Carthage and the river Iberus.

In this part of Spain lay a city called Saguntum, which was in alliance with Rome, and which, on that very account, Hannibal seems to have regarded as a more important object of conquest. The Romans, who had good intelligence of all his movements, saw with mingled rage and astonishment that, after conquering the adjacent territory, he was rapidly preparing to lay siege to Saguntum. By this time, however, having learned that he was a foe not to be lightly provoked, they sent an embassy to him, warning him that they were in alliance with the Saguntines. To this embassy, Hannibal scarcely deigned a reply;—merely and briefly stating that the Saguntines had committed innumerable depredations upon Carthaginian subjects, for which depredations his duty and the honour of his nation demanded that he should inflict due chastisement. He accordingly completed his preparations, laid siege to Saguntum, and almost literally destroyed it. The Romans now sent a new embassy to Carthage to demand that Hannibal should be delivered into their power, in satisfaction of the destruction of their allies the Saguntines; and, to the deep dishonour of our common nature, the envy and hatred of Hanno transported him so far beyond all bounds of decency or prudence, that he actually rose in the Senate, declaimed bitterly against the whole Barcan family, and seriously and strongly urged the policy and propriety of giving up the illustrious Hannibal to his enraged enemies, the Romans, though he was perfectly well aware that to do so would be tantamount to putting him to death by the most detestable and cruel torments. Once more, the exceeding wickedness of Hanno overshot the mark. He was sternly reproached by his fellow-senators for his implacable hate to the Barcan family, and for his obvious want of patriotism; and the Roman embassy was dismissed with assurances of the sincere desire of the Carthaginians for honourable peace with their ancient allies the Romans, but, at the same time, their fixed determination to support Hannibal in the course which the infamous conduct of the Saguntines had provoked, and which repeated instructions from Carthage had duly authorized.

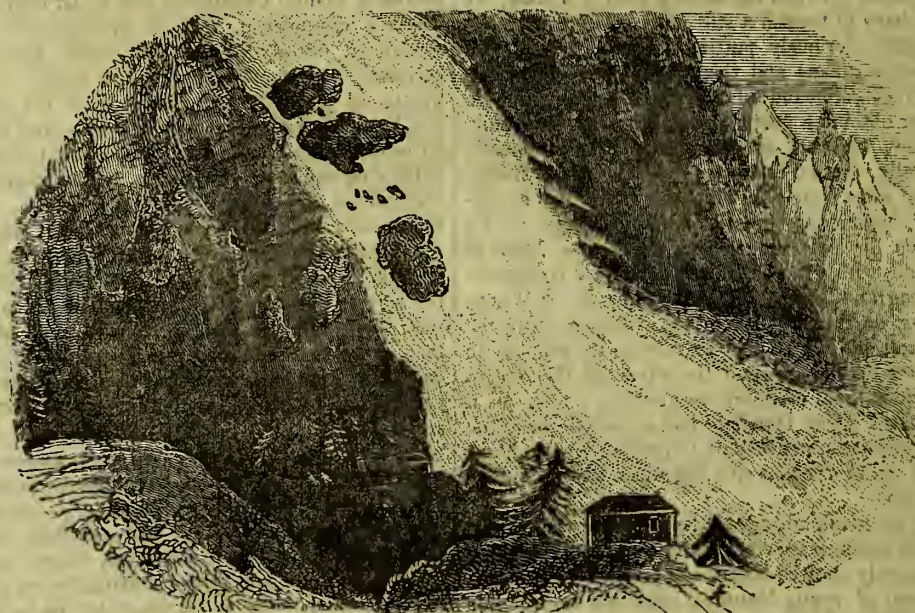
In this state of things, the very genius of the Roman government compelled them to commence hostilities; and thus began the terrible second Punic war. Undeterred by the exposure and rebuke which had resulted from his former ungenerous opposition to Hannibal, Hanno took every opportunity to prevent him from receiving the supplies of men and money, which were so necessary to his arduous enterprise. A singular instance of this equally malicious and unpatriotic conduct occurred after the battle of Cannæ; that terrible battle in which Hannibal's exquisite generalship inflicted a defeat upon his opponents, which literally put all Rome in mourning. Immediately after the battle, Hannibal sent his brother Mago to Carthage with news of his great and important victory, and also with most pressing and eloquent entreaties for a large and instant supply of men and money. While all the rest of the Carthaginians, elate with the wonderful triumph of their accomplished general, were not merely willing, but actually eager to grant his utmost demands, the envious Hanno, in whose bosom every new triumph of Hannibal seems to have ankled like a barbed and envenomed dagger, inveighed bitterly against him, and opposed the motion for granting his demand. And though his opposition was unsuccessful, he subsequently contrived, by his base private intrigues, to get the supply of men very greatly diminished, and even to retard the time of their departure, and to cause them to be sent by the most difficult and circuitous route, and charged with other services previous to joining Hannibal.

So terrified were the Romans after the battle of Cannæ,

and so weakened was their army,—two hundred and fifty thousand of their best troops having been destroyed during the first two years of the second Punic war,—that if Hannibal had promptly received the supply voted to him by the senate of Carthage, and, thus reinforced, marched straight upon Rome, there is little room to doubt that he would have transferred the empire of the world to Carthage, and reduced the seven hilled mistress of the nations to ruins; for in spite of the tardy and scanty supplies which actually reached him, he maintained himself for fourteen years in despite of the absolutely gigantic efforts of the Romans to overwhelm him. And when Scipio, taking the surest of all means to rid Italy of the seemingly unconquerable Hannibal, marched a mighty army against Carthage itself, and the trembling senate sent hasty and urgent orders to Hannibal to quit Italy, and march with all speed to the rescue of Carthage, the great and most shamefully ill-treated general bitterly, and truly as bitterly, observed that he left Italy, driven thence

not by the force or warlike skill of the Romans, but by the base and malignant villany of the Hannorian faction at Carthage. Long, he exclaimed, had his enemies envied his success in Italy, and laboriously had they exerted themselves to withdraw him from that country. Having tried all other means in vain, they had at length wickedly resolved to accomplish it at the expense of their country's utter ruin: esteeming, as it seemed, the downfall of Carthage an evil of comparatively small consequence, when counterbalanced by the luxury of ruining the detested, because brave, honest, and successful Barcan family.

From the recal of Hannibal, the history of Carthage is properly included in the history of Rome, which we shall commence in our next number. To this brief sketch, therefore, we need only add that in it, and still more in an elaborate history of Carthage, there is a most impressive lesson against inordinate ambition on the part of states, and against jealousy and factions among its principal citizens.



AVALANCHES.

THE Alps, whose sides and summits are continually covered with snow, present perils to the traveller of a magnitude which few other mountainous districts offer: these dangers chiefly result from avalanches. Every rocky or other protuberance on the sides of each mountain forms a ledge, whereon large masses of snow called glaciers become collected; and whenever the heat of the sun produces a thaw, the water, while running down the declivity, destroys the adhesion between the snow and the earth upon which it rests, and fresh snow afterwards falling upon the old and tottering masses, determines their fall. The sudden precipitation of these enormous glaciers are styled avalanches.

Avalanches are of three kinds. 1st, The wind or dust avalanche, occasioned by the wind violently distributing fresh fallen snow into minute and innumerable particles, which are scattered far and wide with inconceivable density and rapidity. 2d, The thunder avalanche, which, falling by its own accumulated weight, brings with it all the ground on which it rests, besides trees, rocks, and whatever lies in its

track: hill and valley tremble with the noise of its descent. 3d, The earth or land-slip avalanche, which is caused by the weakening of the soil from long-continued and deep penetrating rains. When the weight of accumulated snow is too great for the loosened earth to bear, the whole slips into the valleys beneath, carrying houses, trees, and even entire forests, and occasioning the most horrible destruction.

It frequently happens that huge glaciers, detached by the impulse of the wind, hang as it were by a thread. So slight is their tenure on their resting-place, that the vibration produced by sound, be it ever so slight, will often cause them to tumble. Hence the inhabitants, while travelling over the Alps, remove the bells which are usually attached to their mules, lest the music should be echoed by the unwelcome and fatal sounds of a thunder avalanche; and in certain places, where avalanches fall periodically, the inhabitants accelerate their descent by the use of fire-arms discharged in the air, which seldom fails to have the desired effect.

Of the great catastrophes caused by these enormous bodies

of snow, an avalanche which fell in, the year 1769 is referred to by the Swiss as the most remarkable. This rolled down from the heights with fearful violence upon the pastures on the mountain *Sixt*, and levelled a whole forest of beech and fir-trees, stopping the course of the river *Gipre*, and overthrowing numbers of trees and barns on its opposite bank. But by far the most fatal avalanche fell on Lack in 1719, when several hundred lives were sacrificed.

In spite of the dangers to be encountered in these regions, they generally form a principal portion of the route of "travellers in search of the picturesque." And to those who prefer the certainty of beholding some of the most beautiful scenery in the world, with the chance of being swallowed up in an avalanche, an excursion to the Alps must be a high treat. But mere travellers for pleasure—those whose chief glory is the sublimity of being

"Ninety-nine times higher than St. Paul's,"

are but little qualified to enjoy all the beauties and wonders of these scenes, compared with the man of science. From the journals of one of the latter and far more useful class of travellers, we subjoin an extract, which being penned by an individual who was actually overwhelmed by an avalanche, is not a little curious.

In August 1820, two gentlemen from Oxford, Mr. Dornford, fellow of Oriel College, and Mr. Henderson, fellow of Brasenose, in company with Dr. Homel and M. Sellique, (both of whom abandoned their companions after two days,) attended by twelve guides, set out to ascend Mount Blanc. They encountered the greatest danger, which ended, indeed, with the loss of three of their party, from an avalanche. So nearly had these enterprising travellers accomplished the object of their fatiguing labours, that they reached within three hundred yards of the summit of Mount Blanc; but at this point the snow beneath them suddenly gave way, precipitating the whole party within a few yards of a stupendous crevice in the mountain. This is Mr. Dornford's own account of the accident:—"As we were crossing obliquely the long slope which was to conduct us to Mount Maudit, the snow suddenly gave way beneath our feet, beginning at the head of our line, and carried us all down the slope to our left. I was instantly thrown off my feet, but was still on my knees, and endeavouring to regain my footing, when in a few seconds the snow on our right, which was of course above us, rushed into the gap thus suddenly made, and completed the catastrophe by burying us all at once in its mass, and hurrying us downwards past the crevice, about a furlong below us, and nearly parallel to the line of our march. The accumulation of snow instantly threw me backwards, and I was carried down in spite of all my struggles. In less than a minute I emerged, partly from my own exertions, and partly because the velocity of the falling mass had subsided from its own friction. I was obliged to resign my pole in the struggle, feeling it forced out of my hand; a short time afterwards I found it on the very brink of the crevice. At the moment of my emerging, I was so far from being alive to the danger of our situations, that, on seeing my companions at some distance below me, up to the waist in snow and sitting motionless and silent, a jest was rising to my lips, till a second glance showed me that, with the exception of Mathieu Balmat, (a guide,) they were the only remnants of the party visible. Two more, however,—being those in the interval between myself and the rear of the party,—having quickly reappeared, I was still inclined to treat the affair as a ludicrous though perplexing delay in having sent us down so many hundred feet lower, than in the light of a serious accident; when Mathieu Balmat cried out that some of our party were lost, and pointed to a crevice which had

hitherto escaped our notice, into which, he said, they had fallen: a nearer view convinced us all of the sad truth. The three front guides being where the slope was somewhat steeper, had been carried down with greater rapidity, and to a greater distance, and had thus been carried into the crevice with an immense mass of snow upon them, which rose nearly to the brink; Balmat, who was fourth in the line, being a man of great muscular strength, as well as presence of mind, had suddenly thrust his pole into the firm snow beneath, when he felt himself going, which certainly checked in some measure the force of the fall. Our two hindmost guides were also missing, but we were soon gladdened by seeing them make their appearance, and cheered them with loud and repeated hurrahs. One of these had been carried into the crevice where it was very narrow, and had been thrown with some violence into the opposite brink. He contrived to scramble out without assistance, at the expense of a trifling cut on the chin. The other had been dragged out by his companions quite senseless, and nearly black from the weight of snow which had fallen on him. In a short time however he recovered. It was long before we could convince ourselves that the others were past hope, and we exhausted ourselves fruitlessly for some time in fathoming the loose snow with our poles. When the sad truth burst upon us, our feelings may perhaps be conceived, but cannot be expressed." Such is Mr. Dornford's interesting narrative of this fatal mishap. The survivors, although within so short a distance from the top of Mount Blanc, and so near the summit of their wishes, were obliged to abandon their enterprise as hopeless.

The terrible consequences too often resulting from the fall of an avalanche is sometimes averted by the skill and perseverance of those who are most likely to suffer by the catastrophe, and whose interest it is to avert it. A remarkable instance of this kind is related in Brokendon's amusing "Journals of Excursions in the Alps."

"In 1818, the people of the Valley of Bognes, observing the low state of the waters of the river Drance, became alarmed lest an avalanche had fallen, and partially stopped its course; and in April, some persons went up the valley, and they discovered that vast masses of the glaciers of Gefroz, and avalanches of snow, had fallen in a narrow part of the valley, and formed an immense dyke of ice, behind which the waters of the Drance had accumulated. M. Venetz, an engineer of Valais, was consulted, and he decided upon cutting a kind of tunnel through this barrier of ice, in spite of the extreme danger of the undertaking, in order that the water might be gradually drained off through the opening, to prevent the catastrophe of a sudden and overwhelming flood. In thirty-four days this wonderful work was completed, and immense quantities of water flowed through it without causing any accident. At length, however, the excessive pressure suddenly tore away the whole ice-formed dyke, and thirty-four persons and four hundred cottages were swept away. But this was a trifling disaster compared with the terrible consequences that would have ensued, if the tunnel had not been cut, which decreased the immense basin formed by the barrier more than one-half." "From this greater danger," says Mr. Brockendon, "the people of the valley of the Drance were preserved by the heroism of the brave men who effected the formation of the gallery in the dyke, under the direction of M. Venetz. I know no instance on record of courage equal to this: their risk of life was not for fame or for riches, they had not the usual excitements of personal risk in a world's applause, or gazetted promotion—their devoted courage was to save the lives of their fellow-men, not to destroy them. They steadily and heroically perse-

vered in their labours, amidst dangers such as a field of battle never presented, and from which some of the bravest brutes that ever lived would have shrunk with dismay. These truly brave Valasians deserve all honour." When we state that the tunnel was 600 feet long—that the workmen continued their exertions with the momentary dread of the dyke bursting continually, and alarmed by noises loud as thunder—when all this is considered, one can but echo the tribute so

well paid by the author of "Journals of Excursions in the Alps, to the courage of these brave excavators.

There are a few monasteries scattered over the Alps, in all of which dogs are kept, and are so trained as to render material assistance to those travellers who may have the misfortune to be buried in the snow. The sagacity of these animals is the theme of general wonder.

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No. I.—SELF-INSTRUCTOR IN BIOGRAPHY.

ROBERT FULTON.

It has always appeared to us that, among all the treasures of biography, none are more precious, none productive of greater practical and directly available benefits to mankind, than the histories of those who have benefited society in the capacity of inventors. They, more perhaps than any other class of men of genius, have literally to fight their way to eminence and usefulness—from obscurity the deepest, and against obstacles the most formidable in reality, and the most insuperable in seeming; and to all the wearing and terrible difficulties which are inseparable from their enterprises, they but too frequently have the addition of the sneering incredulity and contemptuous or selfish indifference of mankind at once to combat against and to writhe beneath. Perhaps no one in modern times has had a larger share of all these various and galling difficulties to contend against, or has either more gallantly battled them, or more proudly and completely triumphed over them, than the great scientific inventor and improver whose name stands at the head of this article.

To America belongs the honour of producing this truly great and gifted man, who was born at the town of Little Britain, in the county of Lancaster and state of Pennsylvania, in the year 1765. His parents were both of Irish extraction, and he was their third-born child, and eldest son; but they seem to have been without the means of giving him any thing beyond a very ordinary plain education in the school of his native place. He continued to reside in that town until he had completed his seventeenth year; but unfortunately we have no account of the manner in which his boyhood was employed, for although he began and made considerable progress upon an autobiography, the MSS. so far as he had proceeded with them, were lost, with other property of his, on board of an American vessel, which foundered at sea. We have great reason to regret this loss, for the autobiography of such a man as he was would be truly invaluable.

From his seventeenth year, until he had attained his majority, he resided at Philadelphia, where he supported himself by painting portraits, and where he had the good fortune to make the acquaintance of the eminent and able Dr. Benjamin Franklin, by whom he was greatly respected and introduced to many connexions, whose scientific and literary attainments enabled them to be of great service to his acute and inquiring intellect. On attaining his twenty-first year, young Fulton, whose industry, regular way of life, and great frugality, had enabled him to accumulate a small sum of money, removed to Washington county, where he purchased a small farm, upon which he settled with his widowed mother. After residing with her long enough to fix her comfortably in her new abode, he was induced, by the advice of some gentlemen who greatly admired his talents as a painter, to visit this country, in the hope that his countryman, the great Benjamin West, then both a noted and influential man here, would

aid him in bringing his talents fairly under the notice of that most liberal and discerning of all patrons—the British public.

He was not at all disappointed in the estimate he had been taught to make of the liberality and good feeling of his great and gifted fellow-countryman; for West took him at once into his house in the double character of companion and pupil, and used every possible means of cultivating his abilities, and of making them known to the wealthy and influential persons by whom his painting room was so constantly crowded.

With West our subject remained for several years; and having by that time made vast progress towards a perfect mastery of his most beautiful but difficult art, Fulton now retired to Devonshire, where he continued for two years, studying some of the most beautiful scenery that England can present to the eye of taste. While here he made two acquaintances, by whom his genius was greatly influenced, and to whom, in all probability, he owed it that his future career as an inventor should be so infinitely more honourable to his own genius, and more conducive to the best temporal interests and enjoyments of mankind, than any triumphs, however vast, as a mere artist, could have rendered it. The acquaintances to whom we allude were Lord Stanhope,—a nobleman whose name is dear to every lover of science, and whose genius was exceedingly well adapted for improvements in mechanics,—and the Duke of Bridgewater, famous for the canal which bears his name, and which not merely evidences his genius by the excellence of its plan, but also his more than princely liberality by the vast sums of money which he expended in completing it in despite of obstacles which would have appalled a man of ordinary mind, and have ruined any twenty men of ordinary fortune.

To these acquaintances Fulton owed an entire change in the objects of his always noble ambition. Their society kindled into a vivid and unquenchable flame the hitherto dormant and unproductive spark of his mighty and peculiar genius; the talents of the artist were from this time only so far valued by him, as they enabled him to be his own draughtsman, and to bring visibly before the eye of the merest mechanic the vast conceptions upon which he, the ever-pondering inventor and improver, had gazed again and again with "the mind's eye."

From Fulton's own statement we learn that his attention was first directed towards scientific pursuits by his perusal of some papers of the earl of Stanhope; and this perusal especially pointed his attention to the important subject of inland navigation. On exchanging the profession of a portrait painter for that of a civil engineer, he fixed his residence at Birmingham for about a year and a half, and there acquired that practical acquaintance with machinery and the principles of mechanics, which, in after years, was so important an element of his success as an inventor and improver.

About the year 1793 he published a work on canals, which was very favourably received; and subsequently he sent several valuable communications on the same subject to some of the most respectable and influential of the London journals. For some very ingenious and valuable improvements in the method of constructing canals, especially when required to be carried over mountainous countries, he obtained patents both from the government of this country, and from that of France. In the year 1797 he repaired to Paris. At the hotel at which he put up in that city, he had the good fortune to meet with the American poet, Joel Barlow, who was so much pleased with his attainments and manners that he gave him apartments in his house during the whole time of his stay in Paris, which, short excursions on business being excepted, was about seven years.

While residing in France he turned his attention principally to submarine navigation and steam. On the former especially he bestowed vast trouble, and very considerable sums of money; and though his inventions in this direction are now little thought of, and turned to no practical benefit, they undoubtedly were very remarkable both as actual triumphs of science, and as characterising the resolute and persevering author of them.

In 1801 he exhibited at Brest a singular boat, to which he gave the name of the *Nautilus*. It was single masted, and carried a mainsail and gib. In this vessel he and three companions repeatedly descended twenty-five feet, and remained under water above an hour at a time, the boat going at the rate of about five hundred yards in seven minutes. And not only did the boat answer to the rudder just as readily beneath the water as upon the surface, but, which is still more worthy of remark, the magnetic needle of the compass acted as freely in the one situation as in the other. It is to be regretted that we have not a detailed description of this remarkable vessel, together with illustrative engravings; and it is very little creditable to both the English and French governments of that time that an invention which might have been turned to such important uses, was so coldly and scornfully received, that the able inventor was absolutely compelled to stop short in his improvements upon it from sheer want of pecuniary means. In 1804, Fulton returned to England, and offered several valuable inventions to the notice of Mr. Pitt, Lords Melville and Grenville, and other ministers; but, to the great discredit as well as loss of this country, all his offers were rejected. Despairing of finding in England any thing like a fair amount of encouragement, he, in 1806, returned to America. Here he busied himself not only with his submarine boat, but also with the infinitely more valuable project of applying steam to the purposes of navigation. To the invention of the steam engine Fulton never made the slightest pretension: he was too just to be guilty of a false pretence so gross, and surely too sagacious to be guilty of a false pretence so certain to be both fully and speedily exposed. But the gigantic power of steam had hitherto been applied only to the purposes of the manufacturer; and the credit of successfully applying it to navigation unquestionably belongs to Fulton.

While resident in France, he and Mr. Livingston, the American minister to that country, made trial of a small vessel propelled by steam, upon the river Seine. Though there were many defects in this their first essay, its success was sufficiently great to convince them of the practicability of their design; and on Fulton's return to America, in 1806, Mr. Livingston advanced the money requisite for his purpose, and they jointly obtained a patent, securing to them

for twenty years the exclusive right of navigating the state waters by means of fire or steam.

While the vessel was being built, Fulton and his liberal friend and fellow-speculator had but too many proofs that mankind are little prone to admiring new inventions; and the eloquent recital of Fulton should be constantly borne in mind by all who have occasion to bear up against the weight of a similarly unjust and ungenerous incredulity. "As I had occasion," says he, "to pass daily to and from the building yard, while my boat was in progress, I have loitered unknown near the idle groups of strangers, and heard various inquiries as to the object of this new vehicle. The language was uniformly that of scorn, or sneer, or ridicule; the loud laugh often rose at my expense; the dry jest, the wise calculation of losses and expenditure; the all but endless repetition of the Fulton folly. Never did a single encouraging remark, a bright hope, or a warm wish cross my path; silence itself was but politeness veiling its doubts, or hiding its reproaches. At length the day arrived when the experiment was to be put into operation. To me it was a most trying and interesting occasion. I invited many friends to go on board to witness the first successful trip. Many of them did me the favour to attend, as a matter of personal respect; but it was manifest that they did it with reluctance, fearing to be the partners of my mortification and not of my triumph. I was well aware that in my case there were many reasons to doubt of my own success. The machinery was new and ill-made; many parts of it were constructed by mechanics unaccustomed to such work; and unexpected difficulties might reasonably be presumed to present themselves from other causes. The moment arrived in which the word was to be given for the vessel to move: my friends were in groups on the deck; there was anxiety mixed with fear among them; they were silent, sad, and weary: I read in their looks nothing but disaster, and almost repented of my efforts. The signal was given, and the boat moved on a short distance and then stopped, and became immovable. To the silence of the preceding moment now succeeded murmurs of discontent and agitation, and whispers, and shrugs. I could distinctly hear repeated, 'I told you it would be so; it is a foolish scheme, I wish we were well out of it.' I elevated myself upon a platform, and addressed the assembly. I stated that I knew not what was the matter, but that if they would have patience for half an hour, I would either go on or abandon the voyage for that time. This short respite was conceded without objection. I went below, examined the machinery, and discovered that the cause was a slight mal-adjustment of some of the work. In a short period this was obviated, and the boat once more put in motion. She continued to move; all were still incredulous—none seemed willing to trust the evidence of their own senses. We left the fair city of New York, we passed through the romantic scenery of the islands; we descried the clustering houses of Albany—we reached its shores; and then, even then, when all seemed achieved, I was the victim of disappointment. Imagination superseded the influence of fact. It was doubted if it could be done again; or, if done, whether it could be of any great value."

But the sneers and the incredulity of unreasoning people could not affect the facts that the distance accomplished on this occasion by the steam-boat was one hundred and fifty miles in thirty-two hours; and that the return was accomplished in two hours less. The future improvements of Fulton greatly increased the speed of the steam-vessels, while the danger of accidents to the machinery was considerably diminished; and after years of uncheered and unrewarded toil, Fulton had the delight of being the first to

present America with that vessel which is to her, of all the nations of the earth, the most precious.

The remainder of the history of this great man is truly lamentable. His patents were perpetually infringed, his profits continually plundered, and the most valuable and ingenious of his inventions infamously and barefacedly pirated. Harassed by law-suits, he was injured severely both in his fortune and in his health; and on occasion of returning from New Jersey, where he had been to defend his patent from invasion, he was seized with the illness which terminated his truly honourable and valuable life in February 1815.

Besides applying steam power to navigation, Fulton was the author of many other truly ingenious inventions and improvements; of some of the more remarkable of which we shall probably give an account in a separate article.

JEALOUSY.

JEALOUSY has been defined to be "that pain which a man feels from the apprehension that he is not equally beloved by the person whom he entirely loves." This definition is correct as far as it goes; but the jealousy which springs from love is not the only jealousy by which the human breast is tormented. There is a species of this passion which differs from envy only in so far as the latter base feeling is very frequently excited by possession, which the envious grudge to those who have them without desiring them for themselves.

But the jealousy which subsists independent of love between the sexes is a mixture of avarice and envy. Persons guilty of this species of jealousy are grieved at every preferment of their acquaintance, and to this grief is superadded a wish to enjoy that preferment themselves which falls to the lot of others. The jealous lover would be the only object of the affection of his mistress; the jealous man who is not in love would have all the favours of fortune showered upon himself. The smiles of his beloved fair the jealous lover would have bestowed upon none but himself; but the jealousy which has not its foundation in love, kindles into rage at the sight of prosperity or happiness of every description. A promotion in the army galls him to the quick, though he has no connexion with military affairs; and the knighthood of any distinguished man deprives him of a night's rest, not because he feels that *he* ought to be knighted, but because he wishes that he possessed the merits which have obtained the honour for another.

This miserable jealousy exposes the unhappy being who is possessed by it to innumerable vexations; all of which a little sense, and a proper idea of his duty to God and his neighbour, would spare him from. This passion is in truth a phrensy, which keeps its victim in continual and impotent agitation, begetting hatred to others, and neglect of those talents which, if not choked and kept in action by jealousy, would raise their possessor to usefulness, prosperity, and happiness.

Like all our other bad passions, jealousy springs from trivial causes at first, and gradually attains a terrible ascendancy. He who would be happy in himself or amiable in the eyes of others, must sternly and stedfastly resist its very first impulses; and a very little reflection upon our own unworthiness, and upon the brief, perishable, and unimportant nature of all earthly honours, possessions, and successes, will enable us to do so, and to view the greatest successes of others, even if they be our enemies, with complacency.

Jealousy is personified by the figure of a woman in an unquiet and listening attitude, dressed in garments of the colour of the waves of the sea. She holds a branch of thorns in her right hand, and in her left a cock. Her attitude is expressive of curiosity and uneasiness; and the colour of her garments indicates perturbation of mind. The branch of thorns denotes that the torments of jealousy are sharp and piercing; and the cock is the symbol of suspicion and vigilance.

THE CAMSIN,

OR HOT WIND OF AFRICA.

THE violent and destructive hot wind of Egypt called the Camsin, and elsewhere the Simoom, is a singular and very much misunderstood natural phenomenon. Various travellers have given the most marvellous accounts of the destruction of whole caravans by having the sand heaped upon them in overwhelming quantities by this wind; and compilers, ever too prone to place implicit faith in their authorities, have copied these accounts without examination and without scruple.

Rupel, a German traveller, equally distinguished for his natural shrewdness, and for his scientific acquirements, having experienced the effects of this singular wind while journeying between Suez and Grand Cairo, has given us an account of it far more reconcilable to reason and the known principles of natural philosophy than any which we find in previous writers.

Rupel and his party were in the desert, and at about seven hours' distance from Cairo, just before sunrise, on the twenty-first of May, 1822, when the wind began to blow violently from the S.S.E., and increased in a short time to a perfect hurricane, the sand and dust whirling along in such dense clouds, that even a camel and its load could not be seen at the distance of fifty paces. At this time a crackling noise ran along the ground, and our travellers felt a smarting sensation where the wind blew full upon their persons, which sensation Rupel describes by comparing it to that which would be produced by the pricking of a multitude of very fine needles. At first Rupel attributed this sensation, as all former travellers in those parts had done, to the pricking of the fine and poignant particles of sand which were put into strong motion by the wind; but in endeavouring to catch some of these particles to examine them, he found it impossible to do so, and his acute mind at once conjectured that the smarting produced on the bodies of himself and companions, and the crackling noise which ran along the ground, were both the effects and the evidences of the action of electricity. As soon as this conjecture entered his mind, he found new support for it by observing that the hair of the whole party was somewhat bristled, and that the smarting sensation was the most acutely felt in the joints and the extremities of the limbs—precisely the effects observable in a man electrified on an insulated stool. Still farther to be assured that the smarting sensation was not produced by particles of sand, Rupel stretched out a sheet of paper against the wind, but both eye and ear bore testimony that no particle touched the paper; and Rupel very justly concluded that the painful effect of the Camsin is produced by electricity. He thinks too that if caravans have been destroyed, it has been by the electrical properties of the Camsin; but holds all these tales of their being overwhelmed by the drifted sand to be wholly fabulous, and unworthy alike of belief and of serious refutation.



THE VANDALS.

In a late number we gave a tolerably full account of this people, who, together with other hordes of "Barbarians," had so influential a part in the destruction of the once mighty Roman empire. We have there sufficiently spoken of their origin and character. In the Engraving above, our readers will see striking effigies of the fierce and hardy people, who, in common with the Alans and Huns, not

merely compelled the Romans to defend their own dominions instead of going, as of old, as plunderers into the dominions of others, but at length, in the feeble reign of Honorius, who succeeded to the empire A.D. 395, subverted the whole of the western empire, and founded various states upon the ruins of different portions of it in Germany, Italy, &c.—*See p. 142.*

DEMOCRACY ILLUSTRATED, OR THE RISE AND FALL OF THE ANCIENT REPUBLICS.

No. IV.—ROME.

(Continued from p. 144.)

WE may form some judgment of the extent to which former tyranny had succeeded in trampling upon the rights and the liberty of the Roman plebeians, by attending to the alterations which were made in the laws immediately after the expulsion of Tarquin and the abolition of the monarchy.

The plebeians were now reinvested with the right, of which they had been deprived, of holding assemblies and of voting upon public affairs. Had the reform stopped here it would indeed have been rather a nominal than a real one; for the patricians, while they restored to the populace the right of assembling and voting, had by far the greatest weight in deciding the annual election of the two consuls, as the newly-created officers were termed, in whom ub-

stantially, though not in name, the regal authority was now vested. But one of the leading men in the anti-monarchical movement, Valerius, surnamed Poplicola, not only caused the elections of consuls and other magistrates to be, at least nominally, in the hands of the people,—and even this nominal power had a strong tendency not merely to flatter the people, but also to incline the patricians to aim at popularity by good conduct, rather than to provoke odium by tyranny and extortion,—but also procured the enactment of a law, providing that no Roman should be in any wise punished without having first been legally brought to trial; and that, if any Roman were sentenced by a magistrate to be punished by fine or whipping, such punishment should not be inflicted until after the accused and sentenced person should have

appealed to the people, and had his sentence confirmed by their votes.

If this just and humane law gives us, as it inevitably must, a very high opinion of the genuine patriotism and statesman-like ability of Valerius, it no less strongly paints the degradation of the people for whose relief such an enactment was necessary. In the justice and humanity of the new law we have a terrible and graphic commentary upon the helpless condition to which the plebeians of Rome were reduced, and upon the devilish and irresponsible as well as unsparing cruelty with which they had been treated.

But though the measures which Valerius had the wisdom to devise and the influence to carry were unquestionably good, so far as they went, they by no means went far enough; for though some of the most objectionable of the practices already in force were abolished, yet, as the chief power was really in the hands of the patricians, it was inevitable that that power would be exerted to the detriment of the plebeians, whensoever the interests of the two orders should become either really or in the judgment of the patricians opposed.

Now though Tarquin and his family were expelled, they were very far from being powerless as to resources, or in despair as to the possibility of recovering the power which they had so grossly abused and so shamefully lost. Among the Latins, the bitter foemen of the Roman citizens, the Tarquins found numerous and zealous adherents; and for a long series of years the Romans were involved in desperate and exceedingly expensive struggles against their expelled tyrants and their mercenary allies. Such a state of things necessarily involved a vast increase in the taxation; and the patricians, regardless of the fact, that they were infinitely more concerned than the plebeians in the issue of the strife, caused the chief burthen of the war to fall upon precisely that portion of the population which, by reason of its poverty, was the worst qualified to bear it. The consequence was, that the poor got involved in debt, and as the inhuman laws of Rome, as regarded insolvency, gave the creditor an almost unlimited power over the liberty and person of his debtor, empowering even the use of chains and the scourge, the great majority of the plebeians were in a state of the most galling and terrible slavery.

About twelve years after the expulsion of Tarquin, and the substitution of the consular for the monarchical government, the miseries of the people had become too dreadful to be any longer submitted to without resistance. The plebeians of Rome were, in fact, at this period in precisely the same trampled and wretched condition as the populace of Athens were when the virtuous Solon made his appearance as a lawgiver. Burthened with debts, which it was utterly impossible for them to pay, and subjected, consequently, to the most injurious and cruel treatment at the hands of the wretches who made a trade of lending money at usury, they had no longer any care about the issue of the war with Tarquin; being by this time but too sensible that, to all practical purposes, it was the same thing to them whether they were trampled upon by Tarquin, or by the usurers who held them in bondage.

At this very time, Tarquin, having raised up a confederacy of many cities of the Latins, was upon the eve of making a new effort to regain his authority in Rome. The patricians, greatly alarmed at the imposing attitude and active preparations of Tarquin, commenced a new levy for the purpose of resisting him; but when the people were called upon to enrol themselves for this new expedition, they flatly refused to do so, unless on condition of a law being first enacted to free them from their onerous debts, and the terrible cruelties

exercised upon them by their creditors. All persuasions to induce them to depart from this sensible and just determination being found unavailing, the senate, seriously alarmed for the consequences, met to discuss the affair, and to endeavour to find some means of warding off the threatened mischief.

On this occasion, as formerly, Valerius Poplicola humanely and wisely sided with the oppressed people; but he was fiercely and strongly opposed by Appius Claudius, and other haughty patricians, and instead of the debts being cancelled, the senate merely ordered that they should not be sued for until the termination of the war. And lest this very partial step should not induce the people to arm against Tarquin, the senate enacted that for six months an officer under the title of dictator should rule with absolute and irresponsible authority; thus evading that wise and just law which Valerius had originated for preventing the punishment of Romans previous to the confirmation of the magistrate's sentence by the votes of the people.

The people were now fairly vanquished; and Lartius, one of the consuls, who was named as the new dictator, found no difficulty in raising a powerful and well-appointed army. At the head of this force he took the field, and so successfully used his great ability, that he induced the Latins to conclude a truce for a year. To his immortal honour, as soon as he had thus ward off immediate danger, he returned to Rome and laid down his vast authority without having in any single instance exerted it to the injury of even the poorest Roman.

At the expiration of the truce, the Latins again took the field on behalf of the Tarquins. On this occasion, Anulus Posthumus was created dictator, and took the field at the head of a very fine army, with which he totally defeated the enemy, near the Lake Regillus. Sextus Tarquin, whose infamous misconduct towards Lucretia had caused so much injury to both his own family and the Roman people, was slain in this battle; and Tarquin himself, now well stricken in years, died very shortly afterwards, partly of bodily disease, and partly of blighted hopes and disappointed ambition.

We have seen that even when Tarquin and his Latin allies were in so threatening an attitude, the Roman patricians could not be induced to comply with the just demands of the populace for release from the debts with which they had been loaded, solely through the iniquitous unfairness with which the chief portion of the expenses of the war had been thrown upon those who had the smallest means of paying them. And now that they were no longer threatened from without, they showed themselves still less inclined to be either just or humane. The discontent of the people became daily more manifest and more alarming, and the patrician party, in the hope of diverting the storm, proposed war against the Volscians. Again the people refused to enrol themselves; and even after this war, which they were at length with much difficulty induced to prosecute, was at an end, the patricians remained as obstinately opposed as ever to the just demand of the suffering and insulted people. Soon afterwards, the Sabines were preparing to invade Rome, and new commotion arose; the people now, as formerly, insisting upon the abolition of the debts as a preliminary to their enrolling themselves to oppose the threatened invasion. In this strait, the dictatorship was revived, and Manlius Valerius, brother to the humane Poplicola, was made dictator. On assuming this high authority, Manlius gave orders that no one should be sued for debt during his administration, and solemnly pledged his word to the people that at the close of the war the senate should grant them all

the relief they could fairly demand. This wise and just course had all the good effect the dictator could desire. The people presented themselves in crowds to be enrolled, and he took the field at the head of a fine army, and made a most successful and glorious campaign.

On his return, the dictator did not prove unmindful of the promise he had made to the people; but moved the senate to take the matter into serious consideration, with a view to putting an end to the evils by which the plebeians had now been so long and so terribly oppressed. The patrician party, untaught by their past dangers, and unmoved by the scenes of wretchedness of which they were daily the witnesses, still resisted. The most alarming commotions ensued; the people in vast crowds armed themselves and encamped without the city, and there seemed to be but little probability of avoiding a terrible and obstinate civil war. In this threatening state of affairs the more moderate of the patricians at length saw the necessity of yielding, and in despite of the opposition of their more violent colleagues,

empowered an embassy to assure the people that their demand for the adjustment of their pecuniary difficulties should be complied with.

Lucius Junius Brutus, well knowing the propensity of the patricians to break the promises which danger induced them to make to the people, insisted that on this occasion the people should have granted to them the power of annually electing certain of their own body as tribunes of the people, who should be vested with ample power to protect the rights, liberties, property, and lives of their constituents. Great opposition was, as will easily be believed, made by the patricians of the more violent sort to so efficient a measure for the relief and security of the people; but it was now no longer possible to resist, and they were reluctantly obliged to consent to the law creating this new power, and making the persons of those who held it sacred. From the time of the enactment of this law it is that we may justly date the actual liberty of the Roman people.

(To be continued.)

NO. II.—SELF-INSTRUCTOR IN BIOGRAPHY,

Exemplifying what can be done by Self-tuition.

MR. WILLIAM GIFFORD.

NUMEROUS and wonderful as are the instances of almost sublime perseverance in the "pursuit of knowledge under difficulties," we doubt if there is a single instance on record of greater or more successful perseverance than that of the late eminent author and critic whose name heads this article. His father was for some years engaged in the sea service, and contrived to amass a little money, with which he established himself in the business of a painter and glazier at the little town of Ashburton, in Devonshire. Unfortunately he had acquired the habit, once so lamentably prevalent among seamen, of indulging in the disgraceful and injurious vice of intoxication; and after a progress of wasteful and dissipated folly he sunk into the grave.

At this time, William, the subject of our paper, was only twelve years old, and his brother barely two. To support these, their mother,—of whose affectionate and painful efforts to save her children from the ruin to which their father's vices had exposed them, her subsequently eminent and wealthy son made enthusiastic and honourable mention,—determined to endeavour to carry on the business of her deceased husband. The result was such as might have been anticipated. Knowing literally nothing of the details of the trade, and the very nature of it preventing her from personally superintending it, she was mercilessly plundered by her journeymen, until, after a year of constant misery and anxiety, she, too, departed for that land "where the wicked cease from troubling, and the weary are at rest."

Gifford says of her, in his truly admirable and instructive autobiography.—"She was an excellent woman; bore my father's terrible moral infirmities with patience and good humour; loved her children dearly; and died, at last, exhausted with anxiety and grief, more on their account than on her own."

At the time when death thus deprived our subject of his last and best parent, he was not quite thirteen years of age. The little wreck of property left by his mother was seized upon by his godfather, a heartless fellow named Carlile, under the pretence that he had a claim upon it for money advanced to poor Mrs. Gifford. William was taken home

by this man, who, however, sent the other little boy to the workhouse.

For a very few months, Carlile enabled his unfortunate godson to attend a school; but just as he began to make some progress, took him away in the hope of making him useful as a plough-boy, for which employment the poor child was soon found to be wholly unfit, in consequence of a pectoral complaint contracted some years previously.

After some vain attempts at sending the lad out to Newfoundland to assist in a storehouse—which attempts were rendered unavailing by his diminutive stature and weak health—Carlile at length put him on board a coasting vessel belonging to Brixham. In this situation, so peculiarly ill-fitted for a boy in weak health, he seems to have suffered much. He says, "It will be easily conceived that my life was now a life of hardship: I was not only a ship-boy on the 'high and giddy mast,' but likewise in the cabin, where, as a matter of course, every menial office fell to the share of 'the boy.' Yet if at this time I was restless and discontented, I can safely say that I was chiefly so from being precluded from the possibility of reading; as my master did not possess, nor do I recollect seeing during the whole time of my staying with him, a single book of any description excepting the 'Coasting Pilot.'"

If his hard and selfish godfather hoped, in putting him on board the coasting craft, to lose sight of him altogether, he was notably disappointed; for the women of Brixham, who were in the habit of carrying fish weekly to Ashburton, took so many opportunities of speaking of the ragged and friendless condition of little Gifford, that quite a sensation was created, and his godfather found himself so severely blamed for his abandonment of the orphan, after having seized upon the little all that had been left by his mother, that he at length thought it prudent to take him from his hard employment.

For a short time the godfather behaved tolerably well, and the boy made such good use of the schooling which was afforded him that he speedily arrived at the head of the school, and even earned an occasional trifle of money

by aiding his master in the tuition of the younger scholars.

Such progress naturally elated a mere boy of fifteen years old, and, with a very commendable pride and forethought, he now began to consider of a mean of rendering the industry and ability which he was conscious of possessing sufficiently profitable to release him from his painful dependence upon the grudging charity of his godfather. The plan he proposed to himself was to engage as an assistant to his master, and to eke out whatever scanty remuneration he might receive, by taking a few evening pupils on his own account. But on his mentioning his views and wishes to Carlile, that ill-conditioned person treated him with utter scorn; and conceiving that he had now received quite enough schooling, forthwith apprenticed him to a shoemaker.

By way of parenthesis, we may take this occasion to remark that the business of shoemaking, so commonly selected as the fitting occupation of weakly lads, is nearly as bad a one as the most ingenious malice could select for them, from the whole range of sedentary, and therefore hurtful occupations. Some sedentary occupation, it is true, must of necessity be found for weakly or deformed lads; but it would seem that those who have the decision of the line of life to be pursued by such lads, leave wholly out of consideration the important facts, that youths are seldom decidedly weakly without having some disease or mal-conformation of the lungs or chest; and are never very greatly and injuriously deformed, unless merely in the limbs, without some disease or mal-conformation of the spine. Now the business of shoemaking is not only a sedentary business, but which is infinitely worse, during the whole of the long time the young cordwainer is at work, he works in a constrained posture, and in precisely that posture which is most likely to cause disease of the spine and compression of the lungs in the healthy, and grievously and permanently to aggravate them in the case of those who are already afflicted. We have been led to make these brief remarks by our belief that a want of knowledge upon this subject causes many really humane people to be guilty of great, though quite unintentional cruelty, and many unhappy lads to be subjected to a long course of hopeless torture.

But, to return to our proper subject. Carlile, it seems, had a cousin who was a shoemaker, and who was willing to receive young Gifford as an apprentice, without the usual premium; a fact which, probably, had far greater influence with the poor boy's "godfather," than any consideration about the fitness of the trade for the health and constitution of the boy. He, of course, felt any thing but pleasure at seeing his destiny fixed so wide of the mark at which his young and not blameworthy ambition had aimed; and he touchingly paints his desolate and cheerless feelings in these few words:—"I was so shocked at the intelligence that I did not remonstrate; but went sullenly and in silence to my new master, to whom, on the first of January, 1772, I was bound until I should attain the age of twenty-one."

As he himself tells us, he hated his new business with a perfect hatred; and of course made but little progress in learning it, spending every hour that he could snatch from the menial drudgeries to which alone his master thought him competent, in endeavouring to preserve and extend his little store of learning. To extend it, in good truth, was no very easy matter; for the only book he possessed was a treatise on Algebra, which, ignorant as he was of simple equations, was, in his own words, "a treasure locked up." His master's son, however, had a "Fenning's Introduction," and all his jealous and ungenerous care to keep it concealed could not prevent young Gifford from ultimately discovering

its hiding-place. On doing so, he sat up "for the greatest part of several nights successively; and that before he suspected that his treatise was discovered, I had completely mastered it, and was prepared to enter upon my own." But a new difficulty now occurred—and, probably, in all the histories of self-taught men there is not a more striking instance of stern resolution in the pursuit of knowledge than that which is given in the next few lines, which are the last our limits will allow of our quoting from the exceedingly simply written, yet singularly touching autobiography of a man, who from poverty, sickness, and all but utter destitution of the means of mental improvement, rose to be one of the best of the translators, satirists, commentators, and critics of his time and country—rich as they were in highly-gifted gentlemen in all those departments.

"I had," says he, "not a farthing on earth, nor a friend to give me one. Pen, ink, and paper, therefore, (in despite of the flippant remark of Lord Orford,*) were for the most part as completely out of my reach as a crown and sceptre. There was, indeed, a resource; but the utmost secrecy and caution were necessary in applying it. I beat out pieces of leather as smooth as possible, and wrought my problems upon them with a blunted awl; for the rest, my memory was tenacious, and I could multiply and divide by it to a great extent."

That one sentence ought to put to the blush every young man who, having the free use of books and writing materials, is yet grovelling and indolent being enough to begrudge the labour necessary to rendering himself intelligent.

While our enthusiastic student was thus steadily and sternly combatting difficulties which would have absolutely appalled any one not truly determined to learn, he from time to time composed satirical and occasional verses, which though of a quite sufficiently doggerel order, obtained considerable notice and acceptance in the little neighbourhood. Though his verse-making was, unquestionably, the least praiseworthy portion of his unaided efforts, it was the means of taking him from his obscure misery.

A Mr. Cookesley, a surgeon, and a man of large humanity, though of very limited pecuniary means, met with some of these verses, and sought out their author. On hearing the singular and pathetic history of the young student, Mr. Cookesley so perseveringly and strenuously exerted himself among his friends and patients, that a sum was raised sufficient in the first instance to purchase the cancelling of young Gifford's indentures, and subsequently to give him two years of schooling. The application and progress of the befriended youth so well justified both the judgment and the kindness of his friends, that it was determined that from school he should proceed to college. Mr. Cookesley accordingly exerted himself till he procured a sizarship at Oxford for his *protégé*, and did all that lay in his power to render his pecuniary means adequate to his support there.

At college, as at school, Gifford was literally untiring and Herculean in study. His friend Mr. Cookesley died ere his benevolent anticipations of Gifford's success were fully realised. But in Lord Grosvenor, the translator of "Juvenal," he found a friend as enthusiastic as Mr. Cookesley, and as wealthy as that benevolent man was poor. His lordship first sent Gifford abroad as travelling tutor to Lord Belgrave, and subsequently settled upon him a very handsome annuity. Hitherto we have seen him only untiring and gifted in obtaining knowledge; but he subsequently proved himself equally untiring and gifted in using it.

On returning from his travels with Lord Belgrave, he

settled in London," determined to distinguish himself as a literary man, and happily exempted by the liberality of Lord Grosvenor from any fear of wanting the necessities of life. His first work was a translation of the "Satires of Juvenal," written while at college, but not published until after his return from abroad. He subsequently published the "Baviad" and "Mæviad," powerful, but very bitter satires on literary and dramatic errors. These obtained him very great reputation, and in 1797 he became editor of the "Antijacobin," that powerful journal in which some of the ablest gentlemen in England made efforts as successful as strenuous to rouse up a general and just feeling of detestation of the principles which some bad and discontented men were endeavouring to impose for truth upon the minds of the English people.

Though his connexion with this very important and influential work must have greatly taxed his time and attention, he published splendid editions of the dramatic works of Massinger, Ben Jonson, Lord, and Shirley—with biographies and annotations of singular acuteness as to thought, and felicity as to language. In 1809, he was so universally known as a fine critic, and equally admirable and bold writer, that he was selected as the fittest person to edit the "Quarterly Review;" to which work, besides superintending it, he largely contributed until the year 1824, when his utterly broken health compelled him to resign a duty in which he had proved himself one of the ablest critics, and one of the firmest and wisest friends to both the Church and the Crown, who have combated wickedness and error during a period of singular peril and excitement. Having no family, Mr. Gifford accumulated a rather considerable fortune; and his last will showed the thorough soundness of his principles. His first patron, Mr. Cookesley, died very poor; and Gifford left to the son of that patron nearly the whole of his property. He died in December 1826; and in January 1827 was interred, as his merits richly entitled him to be, in Westminster Abbey.

THE TRUE END OF STUDY.

It cannot be too frequently impressed upon the minds of the youthful, that though learning is very greatly to be desired for its own sake, and for the intellectual pleasures and powers which it confers upon its possessor, it is still farther and more passionately to be sought after as a means than as an end. We may ransack all the store-houses of thought; we may garner up in our minds all the facts which those store-houses contain; we may become very oracles of mere facts; and yet, speaking with reference to the grand end of all intellectual acquirement, we may be as ignorant as though we were utterly destitute of even the mere rudiments of scholastic learning. The *heart* must be cultivated as well as the *head*, if we would be really and efficiently well-educated. No mere catalogue of names and dates; no mere remembrance of events; no mere and unappreciated sort of reasonings; no merely intellectual acquisition; can compensate for a want of sound *moral* culture.

We repeat, that parents and tutors cannot too frequently or too forcibly impress this upon the minds of the young; for the very universality of the taste for study, and the universal accessibility of the opportunities of gratifying that taste, render it but too probable that the means may, in numerous instances, be mistaken for the end; and that the moral improvement of our population may consequently be very far

less striking and rapid than its intellectual improvement; and whenever that is the case, there must necessarily be something faulty either in the tuition or in the taught. We confess that we have high and inspiring hopes of our kind; we look with a feeling little short of rapture upon the grand advances which all ranks of our compatriots are making in the acquisition of knowledge. But highly as we prize intellectual acquirement, and certain as we are that even when merely made *for its own sake*, that acquirement usually has a powerful effect in rendering men happy, industrious, honest, and peaceable; we should be very loth to see any neglect in making moral and religious improvement the *avowed*, the direct, and the *CHIEF END* of all study, and not the merely casual and insensible effect of it. Rightly directed, the universal and passionate love of reading which marks the present time may be made the instrument of good, unlimited both as to amount and duration; but the very knowledge that it *may* be rendered thus valuable, is of itself cause sufficient to make every zealous well-wisher of mankind painfully anxious that such a powerful weapon as our literature, and we particularly allude to our cheap periodicals, may neither by writer nor by readers be otherwise used than wisely, worthily, and to the fullest possible extent.

THE AFRICAN SLAVE-TRADE.

As far as England is concerned, the slave-trade is at an end for ever; it has become, as to this country, merely a matter of history, and it is as such that we shall give some brief notices of it, partly as an interesting subject, and partly as one upon which, more than upon almost any topic as generally discussed, there is a vast deal of misapprehension.

Perfectly agreeing in all that is said in reprobation of the horrid practice of buying and selling human beings, as though they were beasts of burthen, and of afterwards treating them infinitely worse than, in this country at least, any man would be suffered to treat even a beast, we yet think that too little account has been taken of the share which Africa herself had in keeping up so vile a traffic.

All causes, however excellent in themselves, are occasionally disgraced by unworthy or incapable advocates; and when the question of the abolition of slavery was as yet unsettled in this country, it was quite a fashion among mere declaimers to put the question as lying entirely between the tyrant white man, and the insulted and trampled negro. If this were true, it would, of course, be not merely right to dwell upon it, but, in fact, it would be the duty of the advocate of abolition to put it forward as one of the strongest possible arguments for the instant and vigorous interposition of national power, to put an end to the miseries inflicted by individual cupidity and tyranny. In such a case the honest advocate would feel bound to say, "But for the accursed lust of gain on the part of the white man, the negro would escape the horrors of being torn from his country and connexions, and compelled to shorten as well as agonize his whole life in the performance of hard, unwilling, and ill-remunerated labours. If, therefore, *you* as a people do not prevent, as far as in you lies, the savage incursions of white men, *you*, in fact, are guilty of wilfully *causing to be committed* all the villany which makes us blush for our common nature as we read of it, and makes the very name of white man horrible and hateful to every native of Africa." But the case was not as mere declaimers thought fit, with a most nauseous pertinacity, to represent it. We have done wisely and

humanely in doing our utmost towards putting down the infamous traffic in human blood; in so doing, we have obeyed the dictates equally of reason, morality, and religion. But though we have acted thus wisely and well in doing all that *was* in our power towards *diminishing* so truly detestable a traffic, and towards a proportional diminution of the manifold and disgusting enormities to which such a traffic invariably gives birth, the declaimers to whom we have alluded acted most dishonestly in pretending that the slave-trade solely, or even to any considerable proportional extent, depended upon the concurrence, wicked as that most undoubtedly was, of the whites; for in point of fact, the slave-trade of the whites was a consequence, and not a cause, of unhappy Africans being sold like beasts of burthen; and as to praiseworthy alterations, we have rather wiped away a foul blot from our own Christianity and manhood, than afforded any considerable or sensible relief to that unfortunate race, whom old Fuller so quaintly and characteristically terms—"The images of God, carved in ebony." A short notice of the actual slave-trade of Africa will suffice to show our readers how much the English public has been deceived by mere declamation, originating, we fear, quite as frequently in political quackery as in positive ignorance.

Mungo Park has very distinctly shown that slavery is the common custom of Africa, and that the European and American demand for slaves is in fact very trivial compared with the demand upon the continent of Africa itself; and his statements, be it remembered, are fully borne out by all subsequent explorers of that continent, not excepting the intrepid and persevering Landers.

Park describes the slaves of Africa as consisting of two classes—the first comprising those who have been slaves from their birth; the second, those who were born free, but have subsequently lost their freedom from some one of the several causes which, after him, we shall proceed to notice.

Prisoners taken in battle become, *ipso facto*, slaves; and Mr. Park was of opinion that by far the greater number of those who had once enjoyed liberty, but subsequently became slaves, had lost their freedom in this manner. Swarming as the African continent does with population split into innumerable tribes under the government of as many petty kings and chiefs, wars are necessarily very frequent; and the weapons and mode of warfare of the Africans make the capture of the vanquished combatants an infinitely more common event than their death. Vast numbers thus become slaves to their victors, who compel them to toil just as the Spartans compelled the unfortunate and trampled Helots. Slavery is, of course, and especially in such a climate as Africa, very unfavourable to the duration of human life; and thus the more powerful and successful chiefs readily find a market for so many of their prisoners as they do not need for their own immediate employment.

It would be a disingenuousness almost equal to that of the shallow declamation which we desire to refute, to pretend that the resort of Europeans and Americans to the African coast for the purchase of slaves, has not in very numerous instances encouraged African chiefs to make war upon their neighbours. It is a fact of which there is direct evidence, and which, indeed, common sense would cause us to believe, even were there no such evidence. But when the whole number of slaves annually purchased by both Americans and Europeans is compared with the actual myriads of Africans who are slaves in Africa, though far, hopelessly far, from their birth-place and the residence of all their connexions, common sense and common honesty will smile, in very scorn, at the ridiculous pretence of African slavery depending, except in the most (arithmetically, not morally,)

petty proportion, upon the villains, whether American or English, who buy slaves to bring them from Africa. Nor is the condition of the slave in Africa at all more tolerable than that of the slave who has been dragged for ever from that his native quarter of the globe. Leaving, however, that point for future consideration, we will now recur to the *causes* of slavery.

War, as we have seen, is an exceedingly prolific cause; a scarcely less prolific one is insolvency. No people on the face of the earth are more addicted to speculative trading than the negroes. In the course of their trade they, of course, very frequently contract debts, in the hope of not only making enough to discharge those debts, but also to make large profit. Supposing them to fail in making good their engagements, their creditors may seize, firstly, whatever property is possessed by the insolvents; and secondly, if the property be not sufficient to cover the demand, the insolvent himself, or any members of his family.

Another cause of slavery is conviction of certain offences—such as murder, adultery, and witchcraft.

When any man has become a slave, from whichever of the above-mentioned causes, he usually continues to be so during the whole remainder of his life; and all children born to him subsequent to his becoming a slave are "born slaves."

Now when we consider the vastness and the wonderful populousness of Africa; and when we further consider, that in some of the petty kingdoms visited by the Landers, those intrepid travellers found the number of slaves to that of freemen to be in the proportion of four to one, it will at once be seen that the total abolition of the purchase of Africans by both Americans and Europeans will scarcely make any perceptible difference in the number of Africans annually consigned to misery and unrewarded toil. Very true it is that what has been done in this matter is good as far as it goes; but it is sheer cant to speak of that good as being, as to amount, any thing more than very inconsiderable in comparison to the mighty mass of evil which still remains in full force, and which will remain unremedied until European civilisation, and, above all, until Christianity shall be diffused throughout the whole of that vast, interesting, but most benighted and suffering land.

We will now present our readers with some very interesting details of the actual state of slavery in Africa.

Besides the immense number of slaves which the petty chiefs and kings of Africa retain in their own immediate power, a further large number has annually been taken into the Barbary States, where their lot is infinitely worse than in America or the West Indies; and so far does the continuance of slavery seem to depend upon the guilty concurrence of either America or Europe, that, in the *Journal* of the Brothers Lander, we find those intelligent and intrepid travellers saying, "The Sheikh of Bornou has recently issued a proclamation that no slaves shall be sent from the interior for sale farther west than Wowow; so that none will be sent in future from thence to the sea side." And again they say: "The greatest and most profitable market for slaves is at Timbuctoo, whither their owners at present transport them to sell to the Arabs, who take them over the deserts of Zahara and Lybia, to resell them in the Barbary States."

With such facts incontrovertibly before us, it surely is something worse than merely idle to speak of the share which America and England have had in this disgusting and disgraceful traffic, as having any thing more than a very small share of influence in causing that traffic to be continued. The truth is, that nothing short of the complete civilisation of all the more powerful tribes of Africa will have

the truly desirable effect of putting an end to the horrors of slavery; and it is chiefly as a first step toward this important end that we consider the recent Abolition Act of England valuable. While we were aiding and abetting in the foul trade in human flesh, it would have been idle indeed to hope that precepts hourly contradicted by our example would have any good effect upon the avaricious African chiefs, who are excited to make war upon their neighbours by their mere desire to obtain slaves, whether for labour or sale. But we may now interfere with good effect. The researches of Park, Denham, Clapperton, and the Landers, have done much towards removing our utter ignorance of the interior of Africa; and there seems to be no good reason to doubt that a succession of commercial and religious missions may at a period by no means distant bring the now oppressed people of Africa and their equally ignorant oppressors fairly within the pale of civilisation. Assuredly if any thing can prevent a consummation so desirable, it will be the at once silly and wicked cant of speaking of that as the *abolition of African slavery*, which is in point of fact only the very first requisite step towards it.

A PERSIAN DOCTOR AND THE ELECTRIC MACHINE.

At Ispahan, all were delighted with the electric machine, except one renowned doctor and lecturer of the college, who, envious of the popularity gained by this display of superior science, contended publicly, that the effects produced were moral, not physical,—that it was the mummery we practised, and the state of nervous agitation we excited, which produced an ideal shock; but he expressed his conviction, that a man of true firmness of mind would stand unmoved by all we could produce out of our glass bottle, as he scoffingly termed our machine. He was invited to the experiment, and declared his readiness to attend at the next visit the Begler-Beg paid the Elchee.

The day appointed soon arrived. The Begler-Beg attended with a numerous retinue, and amongst them the doctor, whom we used to call "Red-Stockings," from his wearing scarlet hose. The philosopher, notwithstanding various warnings, came boldly up, took hold of the chain with both hands, planted his feet firmly, shut his teeth, and evidently called forth all resolution to resist the shock; it was given, and poor "Red-Stockings" dropt on the floor as if he had been shot. The good-natured philosopher took no offence; he muttered something about the reaction of the feelings after being over-strained, but admitted there was more in the glass bottle than he anticipated.

THE ELEPHANT.

IN all times, and by all nations to which he has been known, this truly magnificent animal has been greatly and justly admired. It is not his vast bulk or his aspect—the latter of which, indeed, is rather stupid and unattractive than otherwise,—but his singular intelligence, that has won him this admiration; an intelligence so great, so nearly approaching to that of the human race, that there is not the poet's ordinary exaggeration in the well-known phrase of the "half-reasoning elephant."

Though possessed of vast strength, and though, while

in a state of nature, exceedingly wild, he is, when subjected to the dominion of man, as docile as any of the weaker animals, and not only learns to obey, but even, to a considerable extent, also to love his keeper. But he must be gently treated, and above all, singular as the assertion may sound—no promise made to him must be broken; for he is possessed of a very tenacious memory, and is also very much addicted to revenge. In some cases, his revenge is terrible; but when the offence to his dignity has been of a slight character, his revenge is usually both ludicrous and appropriate. Of this latter kind of revenge there are some very curious instances on record; of which we select the following. Williamson, in his "Oriental Field Sports," states that there was an elephant employed in transporting baggage for the Anglo-Indian army, that was of so sluggish and heavy a nature that he obtained the not very flattering *sobriquet* of "the fool." On all occasions he was disinclined to doing his fair share of work; and on one occasion he was so sulky and obstinate, that a quarter-master became so enraged as to throw a tent pin at his head. He took no notice of the affront at the time; but in a few days after he took an opportunity to seize the quarter-master, and lifted him on the top of a large tamarind tree, where he left him to make his way down as he best might.

Lieutenant Shipp, a well known writer, and military officer, who served many years in India, relates, in his amusing "Memoirs," that he once tried an experiment, in order to ascertain how long an elephant would bear an affront in remembrance. For this purpose, he put a quantity of Cayenne pepper in some gingerbread, and gave it to an elephant, to which he was frequently in the habit of giving trifles. For six weeks from that time he did not see the elephant; but when he again saw it, and, in his own phrase, "tried to scrape acquaintance" with it, the elephant, after very quietly and demurely allowing the Lieutenant to caress it for some time, suddenly reminded him of the former dealings between them by drenching him from head to foot with exceedingly dirty water.

But if the elephant is a little apt to remember any ill turn that is done to him, not less is he inclined to remember, and, to the best of his ability, repay any kindness which may at any time have been shown to him; and if there are but too many terrible instances of the unsparing nature of his wrath when once it is really and thoroughly aroused, so, on the other hand, there are some singular and touching instances of his generosity to the unfortunate, as well in the case of mankind as in that of his own species—and of the heroism of his gratitude and affection.

Of these qualities we shall in a future paper give some striking instances; and we doubt not that our readers will be induced by them to agree with us in calling the intelligence of the elephant second only to that of man himself.

ABSENCE OF MIND.

THE Rev. George Harvest, author of an elaborate Treatise on Subscription to Articles of Faith, and a volume of excellent Sermons, was a most extraordinary character. A friend and he walking together in the Temple Gardens one evening, previous to the meeting of the club called the Beef-steak Club, in Ivy-lane, to which they were going, and to which Smollett, Johnson, and others belonged, Mr. Harvest picked up a small pebble of so odd a make, that he said he would present it to Lord Bute, who was an eminent virtuoso. After they had walked some time, his friend asked him what

o'clock it was, to which, pulling out his watch, he answered, that they had some minutes good. Accordingly, they took a turn or two more, when, to his friend's astonishment, he threw his watch into the Thames, and with great sedateness put the pebble into his pocket.

Mr. Harvest being once in company with Mr. Onslow in a boat, began to read a favourite Greek author with such strange theatrical gestures that his wig fell into the water; and so impatient was he to get it that he jumped into the river to fetch it out, and was with difficulty fished out himself.

When Lord Sandwich was canvassing the University of Cambridge for the Chancellorship, Mr. Harvest, who had been his school-fellow at Eaton, went down to give him his vote. Being at dinner there in a large company, he suddenly said—"Apropos! whence do you, my Lord, derive your name of Jemmy Twitcher?" "Why," answered his lordship, "from some foolish fellow." "No," replied Harvest, "it is not from some, but every body calls you so." On which his lordship, to end the disagreeable conversation, put a large slice of pudding on his plate, which effectually stopped his mouth for that time.

On another occasion, having accompanied the same nobleman to Calais, they walked on the ramparts, musing on some abstract proposition. Harvest lost his company; and as he could not speak French, he was at a loss to find his way to the inn, but recollecting that the sign was the Silver Lion, he put a shilling in his mouth, and set himself in the attitude of a lion rampant. After exciting much admiration, he was led back to the inn by a soldier, who thought he was a maniac escaped from his keepers.

Having to preach before the clergy at a visitation, he provided himself with three sermons for the purpose. Some wags of his brethren, to whom he mentioned the circumstance, contrived to get the sermons from his pocket, and having separated the leaves, sewed them all up without any regard to order. The doctor began his sermon, but soon lost the thread of his discourse; he became confused, but still went on, and actually preached out, first the archdeacon and clergy, next the churchwardens, and lastly the congregation; nor would he have concluded, if the sexton had not informed him that all the pews were empty.

ARRAGON.

THIS province of Spain, which was formerly an independent and wealthy kingdom, was anciently occupied by the Celtiberians, who were subjected, first by the Romans, and then by the Goths. Subsequently the Moors established themselves in this fertile portion of the Peninsula, but after a long series of wars, of the most desperate fierceness, they were driven out in the year 1118.

The power of the kings of Arragon was limited by that of an officer called the High Justiciary, whose office it was to arbitrate between the king and his people. In the year 1467, this in some respects importantly useful office of High Justiciary was abolished by Philip II., who put the functionary to death, and refused to allow any successor to him to be appointed. At the death of Ferdinand, the last king of Arragon, that kingdom was united for ever to Castile under one sovereignty.

The burial place represented in our engraving is of very great antiquity, and is said to contain the mortal remains of all the kings of Arragon.

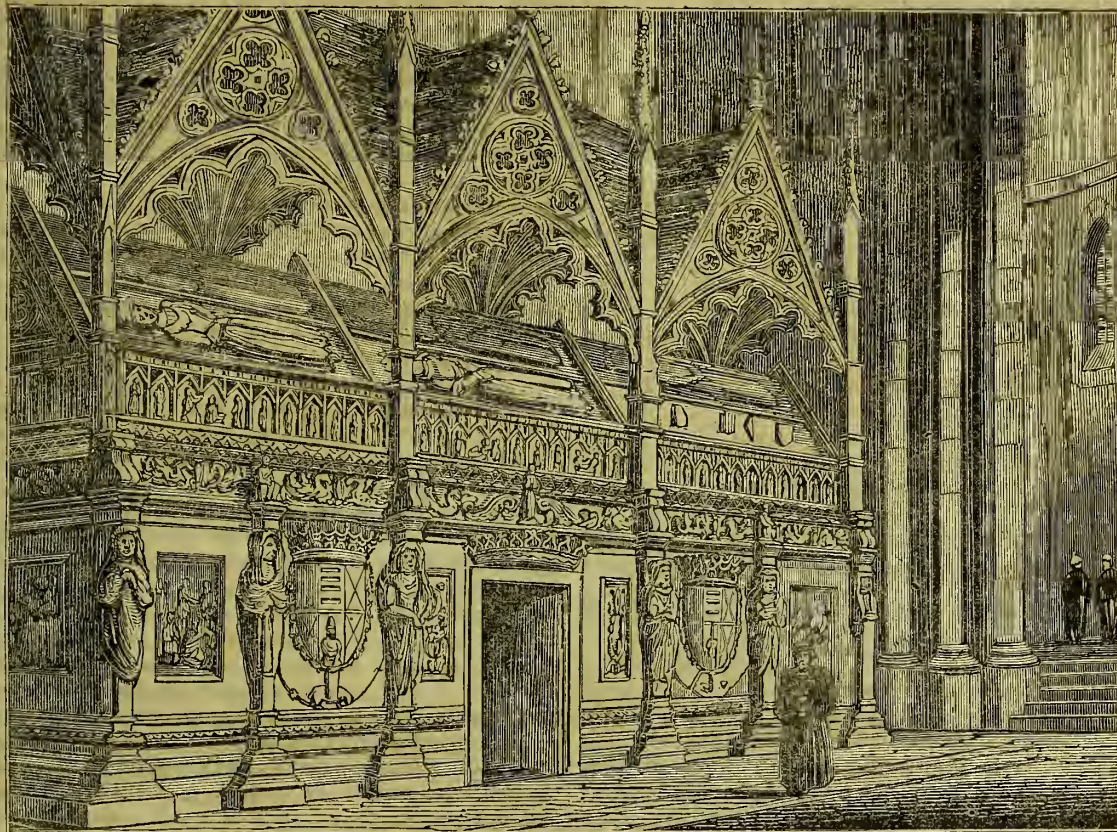
It is not, however, to its antiquities, or to the fact of its having formerly been an independent kingdom, that Arragon solely owes its historical interest. The siege of its principal town, Saragossa, by the French troops, in the year 1808, was productive of such heroism as will make the gallant defenders immortal in history. The encroachments of Napoleon were even more detested in Arragon than in any other part of Spain, and a regular force of Arragonese, to the number of about 900, garrisoned Saragossa.

On June 14, 1808, the French having arrived within sixteen miles of Saragossa, the Arragonese determined upon advancing upon the enemy instead of awaiting his arrival before the town. They advanced accordingly, and a short but sanguinary action took place, in which, unhappily, the Spaniards were defeated. The French, following up their advantage, advanced upon Saragossa, and endeavoured to carry the walls by storm, but were received with such murderous fire that they were obliged to abandon the attempt. They now took possession of heights commanding the city, and commenced a regular and sustained bombardment. The shot and shells told dreadfully upon the place; and upon one occasion a shell struck upon a powder maga-

zine, which blew up, and besides destroying a vast quantity of private property, utterly destroyed the Foundling Hospital, which was crowded at the time with the wounded. Even this terrible event did not dismay the brave Arragonese, who redoubled their efforts to defend their city against the insolent and rapacious invaders. Deep trenches were dug behind each of the nine gates, and sand bags were piled up, such artillery as they possessed was admirably served, and sorties were from time to time ventured upon, and usually with great success.

Nor was the courage of the defenders of Saragossa confined to the sterner sex. The women of the city formed themselves into companies, bore off the wounded from the walls, made and carried cartridges, and as husband, son, or lover, fell beneath the enemy's fire, took his place at the gun, and avenged his death instead of weeping for it. A dreadful, and yet a sublime sight must have been presented when women, reared in luxury and tenderness, and who in happier times would have fainted at the very sight of blood, could not merely witness, but daily participate in scenes of bloodshed and destruction, with tearless eyes and unblenching cheeks!

The gallantry of the women of Saragossa, chief of whom were the Countess of Burita, and Agustina, subsequently surnamed Saragossa, the heroic maiden of whom Byron makes such enthusiastic mention in *Childe Harold*, could not fail to confirm the gallant resolution of the men. By degrees, however, the enemy destroyed the walls of the city; and one of their shells having set fire to the Convent of St. Eugracia, the confusion into which this accident threw the besieged enabled the besiegers to rush over the ruins of the walls and possess themselves of one half of the city. Under these circumstances the sternest courage might have been expected to quail; but the people of Saragossa knew no fear: deprived of the defence of their walls, and with one half of their city possessed by the foe, they now prepared to combat hand to hand, and literally to make every street a battle-ground, and every house a fortress. Batteries were hastily thrown up in the streets, women as well as men defending them, and monks and even children were employed in making cartridges, and convey them to the different posts at which they happened to be needed. So terrible was



Tomb of the Kings of Arragon.

the slaughter, that the heaps of dead bodies already beginning to corrupt, threatened to add the horrors of pestilence to the horrors of war. As the defenders could neither spare the requisite number of men to bury the dead, nor attempt the necessary office under the murderous fire of the enemy, they obliged the French prisoners to do it, who of course were safe from the fire of their own countrymen.

From the commencement of this struggle until the fifth of August, the people of Saragossa gallantly maintained themselves under circumstances of unexampled difficulty and horror; and on that day, to their great joy, they were strengthened by a reinforcement of 3000 well armed men. If they had formerly fought with desperation, they now fought literally with the ferocity of enraged tigers. The fight "raged from street to street, from house to house, and even from room to room;"* and this state of things continued for eleven days and nights, during which time the Spaniards drove the French out of full seven-eighths of the moiety of the city of which they had at one time contrived to possess themselves. On the sixteenth of August the edifices still occupied by the French were set on fire; and on the following morning the baffled and beaten invaders commenced their retreat, leaving the Arragonese in possession of victory, earned by a courage and endurance which never have been, and probably never will be surpassed.

The province of Arragon generally has been described as a fertile, and to travellers, an interesting country. Its trade is not great, and is chiefly confined to neighbouring states. Near Albarracin is the extraordinary fountain, called Cella, at an elevation of 3700 feet above the level of the sea.

There are several patriotic societies in this district of Spain. One of them supplies poor husbandmen with temporary loans of money to recover their harvests and replace cattle that happen to die. The greatest public work of Arragon is its famous canal, which was to stretch across all Spain, from the bay of Biscay to the shores of the Mediterranean, a distance of 250 miles. This undertaking was commenced nearly three centuries ago, and is far from being completed yet; frequent intestine commotions having materially retarded the progress of this immense work. In 1786 Spain gave a lesson in political economy that might be followed, even now, with great advantage, by nations very near home. Two thousand soldiers were employed on the canal of Arragon, for which they received a trifling addition to that pay they would otherwise have had, it being a time of peace, for doing nothing.

The present condition of Arragon is flourishing, notwithstanding the civil war, not being occupied by either of the contending parties.

ESSAY ON THE GREEK LANGUAGE.

No language has been longer preserved entire than the Greek, though no country has undergone more or greater revolutions than that in which it was originally spoken. By the Greek language, we mean that which was written by the ancient profane authors, Homer and Hesiod, Sophocles and Euripides, Plato and Aristotle, Demosthenes and Isocrates. That it has, however, suffered some changes from time to time, especially by the removal of the seat of

* Vide Vaughan's Account of the Siege of Saragossa.
No 230.

empire to Constantinople, in the fourth century, must be confessed ; but it will also be acknowledged that, at first, the analogy of the tongue, the construction, inflections, &c. were but slowly and trivially effected. The chief alterations consisted in its acquisition of *new* words, new terms of art, and the names of such dignities and offices as were then and there in use. No language has a greater *copia* or more varied stock of words, than that of which we are now speaking. The inflections of the other European languages are not more remarkable for their simplicity, than are those of the Greek for their diversity. It has three numbers—the singular, dual, and the plural. The tenses, through which its verbs are conjugated, are abundant ; and these advantages, which afford the means of extraordinary varieties of style, while they prevent a certain dryness of expression which the poverty of any language naturally compels, give it a peculiar fitness for passionate and poetic declamation. To these advantageous peculiarities are also to be added those of the participles, aoristus preterite, together with the words in which the latter abounds, and from which it derives so much force and brevity. At these distinguished features of verbal and grammatical excellence, we shall not be surprised, if we consider that the ancient Greeks were not only a polite but a scientific people. We owe it, indeed, to the cultivation of the science, that we can enrich the living languages with so many terms of art, and so readily give appropriate names to our new inventions. It is remarkable, that since the Turkish conquest, there have been but few works written in a language which all the learned agree in calling the most rich and sonorous in existence ; the fact indeed is, that they have been chiefly confined to catechisms or such productions, composed or translated into the vulgar Greek by the Latin missionaries ; the barbarous policy of the Turks not allowing any of the subjects of their estates to study or promote the arts and sciences ! The native Greeks of the present day are content to speak the language, without giving it any studious attention or entertaining any idea of its further cultivation ; yet has the ancient language been so far preserved among them in its purity, that it is by no means easy to distinguish it from the present vulgar tongue. The chief difference between the two is in the terminations of the nouns, pronouns, verbs, and other parts of speech, which produce a variation which may be compared to that between some of the dialects of the Spanish and Italian languages, which we instance as better known than the Hebrew and Slavonic dialects ; or, to many others which we might have referred. It is also to be observed of the modern Greek, that it often curtails words, runs them insensibly into one another, in the manner of the Italian lan-

guage, and adds to them a sort of enclitick particles. It sometimes confounds certain of the articles and of the diphthongs. Furthermore, we find in the living Greek a considerable variety of words borrowed from the European and other neighbouring languages ; of these, the greater part are participles, which appear as expletives, and which are introduced to characterise certain tenses of verbs and other expressions which would have conveyed the same sense without such particles, and for their omission, both in writing and speech, only require that custom should dispense with their introduction. The new or auxiliary words introduced into the Greek language, serve to mark it in three distinct epochas ; the first of which ends at the time when Constantinople became the seat of the Roman empire ; the second, at the taking of that city by the Turks, which event may also be said to have commenced the third era. There were, however, several books, especially by the fathers of the church, written with great purity of style after the first age of the Greek language ; and its change or decline from that purity must be principally attributed to the necessity for new expressions, induced by religion, law, and polity, both civil and military. Another advantage remains to be mentioned in favour of the richness and extended comprehension of the ancient Greek, in its various dialects, as they existed in the different parts of the greatest philosophers and poets. Each of these, as its accents differed from those of others, or possessed a greater portion of vowels or consonants, was employed in its turn, by the father of Grecian poetry, to lend greater smoothness or force to the expression of his ideas.

The superior sweetness of the fluent and uncontracted Ionic ; the boldness, strength, and compression of the Attic ; the noble expansion or breadth of the Doric, and comparatively feeble and unspirited Æolic ; these afford him the means of commanding that diversified harmony which no less distinguishes his versification than his invention and his fire, and raise his poetry above that of all other ancient writers. These are the properties—these the perfections of the Greek language. The Romans felt, and their authors acknowledged, their superiority over their own. And Lucretius, in explaining to his countrymen the mystery of the Epicurean philosophy, loudly laments the difficulties under which his muse labours, from the deficiency of the Latin language :—

“ But, ah ! the weakness of the Roman tongue
Bends 'neath the burthen of my copious song :
On precepts new, new diction I explore,
And lack the riches of the Grecian store.”

DEMOCRACY ILLUSTRATED, OR THE RISE AND FALL OF THE ANCIENT REPUBLICS.

No. IV.—ROME.

(Continued from p. 155.)

THE creation of the tribunitial power was a real and extensive revolution in the political state of Rome ; for, vested as the tribunes of the people were, with a vast power, and with a sacred character, they could at all times exert their power so as to render the patricians incapable of exercising any undue influence over the fate of the people, beyond that which rank and wealth always have exercised, and in all human probability ever will.

The very struggles which took place between the senate and the tribunes of the people, in the memorable subject of the Agrarian law, show us how real and vast the tribunitial

power was. It is true that there is but too much reason to believe that the turbulent and seditious tempers of some tribunes caused dissensions between the senate and the people, which, had the tribunitial power not been in existence, would most probably never have been kindled. But this is no more than to say, that a good institution was sometimes abused—and of what merely human institution may not, nay, must not, the very same censure be pronounced ? But, if bad use of the tribunitial power was in some instances productive of injury, how much more frequently was its proper exertion the cause of sparing the plebeian multitude from the oppressions of

the powerful, and from civil strife among themselves? Moreover, we are not too implicitly to believe all that is alleged, even against individual tribunes. The institution, striking as it did at the very root of patrician power, *so far as concerned a tyrannous use of it*, could not but be to the last degree hateful to the proud, the cruel, the extortionate, and the inordinately ambitious among the patricians; and we may be sure that the honest and bold exercise of that power, in defence of the people, was not at all calculated to make the tribune so using it agreeable to those whose power it sternly restricted within its legitimate bounds. And it is not merely from reasoning that we may draw this conclusion, as to the usefulness of the tribunitial power, to those for whose benefit it was called into existence, and of its hatefulness to the bad and the bold among the patricians; for we have irrefragable proof of this, in the fact that the tyrant Sylla spared no pains to clip and reduce a power which he knew to be the people's best and strongest protection, while the scheming Augustus and his successors took care to join the tribunitial to the imperial dignity as the surest and safest way of effectually, though not nominally, enslaving the people.

As Rome grew more and more powerful abroad, her liberties became more and more endangered at home. Wealth, luxury, avarice, corruption—these grew, as Rome grew, more and more powerful; and, when once the plebeians had learned to be venal—when once they had learned to prefer their own individual gratification to the common interests of their order—it was in the very nature of things that the ruin of their liberties should be close at hand.

It is perfectly futile to attribute to this or that faction or factions the chief production of the ruin of the popular liberty and power of Rome; the chief producers of that ruin were the people of Rome themselves. They had power, but they had not the virtue or the wisdom which are necessary to render power either useful or permanent; the command of armies, the government of colonies, and in fact all the chief posts of the state were in the gift of the people; and had that people been virtuous and wise their power could not have been shaken. But luxury was more desirable to the poor Roman than the preservation of his own and his order's best interests; and, consequently, instead of ability and virtue being the sole recommendations to high and lucrative situations, the character of the candidate was not the object of inquiry, but what largesses he would distribute, and with what spectacles would he delight the agree and sight-loving people. Wealth, consequently, could always purchase supporters; and whenever, as was very frequently the case, the candidates ran a neck and neck race of extravagance in bribery, and the numbers they were respectively supported by were thus rendered tolerably equal, the election was usually decided by force of arms; and it was not uncommon for the candidate to quit the forum, to assume his office over the dead bodies of his supporters and opponents. Nor did the evil rest here: knowing that they could only rely upon popular favour so long as they could profusely pander to the popular venality, the generals and governors of provinces were guilty of the most atrocious cruelties in fleeing those who were subjected to them, and as long as they were successful in obtaining the power of ministering to the people's avarice they could always be *the tyrants of the people, at the people's own election!*

While the shameful luxury of the Romans caused the plebeians to be unblushingly ready to sell their suffrages to the highest bidders, the immense expense of thus securing popular support rendered the successful candidates for high office even more ferocious and extortionate in their abuse of

power than, perhaps, they otherwise would have been. Cicero's fervid invectives against Verres for his detestable treatment of the Sicilians—even after we shall have made all fair allowance for the zeal and eloquence of the pleader—furnish us with but too much proof of the vile and unsparing cruelty with which the great officers of state contrived to repay themselves the vast sums they were obliged to disburse in order to procure their election.

The luxury imported from the conquered provinces of Asia had begun to produce great and dangerous deterioration of the Roman character long before the destruction of Carthage. But, while that powerful rival was as yet un subdued, the dread of danger from that quarter kept the Romans, (as we learn from Sallust,) somewhat within the bounds of order and decency. But when they no longer had to fear the once dreaded power of Carthage, corruption sprang at one fell bound into rank and riotous strength; the rich, desiring to be richer, shrank from no vileness and from no sacrifice to obtain the power which alone was capable of enabling them to gratify their tyranny and avarice; while the poor, far from looking up to the virtuous among the patricians, only sought to discover which candidate for any of the great offices had at once the greatest amount of money, and the greatest willingness to squander it upon those who would support him.

The only palliation that can at all plausibly be alleged for the baseness with which they literally offered themselves for sale to the highest bidder, is that of their ignorance. And even this plea, though, in fact, it often has been made, is infinitely more plausible than sound. For, though it is undoubtedly true that the Roman people were utterly destitute of that adviser which the people of this country have—the periodical press—yet it is not very easy to understand that a people, exercising a vast direct power, could be ignorant of the injury which every man did to the community who knowingly voted for a bad or incapable man on the mere condition of receiving certain benefits from him. A people so keenly alive to the base profits of corruption could not have been so destitute of judgment as the admission of this plea would demand us to suppose them. And the best interests of society demand that we should attribute the vile conduct of the Roman people, rather to the luxury, avarice, and other vices which are obvious in their whole conduct, than the “ignorance” which theorists have invented for them. That ignorance, no doubt, existed to a certain extent, and a very considerable one; but it was in morals, literature, and science, that the Roman populace was uninformed. In politics they were not ignorant, but wilfully and vilely traitors to the rights and the liberties of their own class, and to the greatness and permanence of the whole nation.

The really virtuous among the Romans, saw and deplored the fatal vices of their compatriots; and, from time to time, energetic efforts were made to arrest the growing evil ere it should grow utterly irremediable. But the people were too far gone in shameless selfishness to be brought back to the pristine vigour and virtue of their great forefathers. The satirist and the moralist in vain endeavoured to incite them to virtue; and the lawgiver in vain tried the force of his sumptuary edicts to restrain the headlong lust of luxury. Not only did the people continue their fatal course, but they even resented all efforts to restrain them, as though those exertions had been gross violations of some hallowed and indefeasible right, and looked upon their truest and wisest friends as their worst and most insane enemies. The treatment of Cato is a striking case in point. Seeing that the people would always be at the mercy of the very worst and most desperate of the ambitious and rapacious part of

the patrician order, as long as votes could be purchased, Cato wisely proposed a severe law against bribery and corruption at elections; and he proposed, too, to add the sanctity of an oath to the severe penalty denounced by the law. It is but too probable, indeed, that the desperate wickedness of both the bribing patricians and the bribed plebeians, would have caused the oath to be violated almost continually, and thus the crime of perjury would have been added to the crime of corruption. But we do not find that any oath was administered, which, under the circumstances was, perhaps, seen by Cato and his friends to be rather dangerous than useful to the public morals. But the mere proposal of a law to prevent them from the scandalous sale of their votes, was so thoroughly unpalatable to the degenerate Romans, that while the wealthy, conscious that their superior wealth was their sole title to high and lucrative office, looked askant and hostilely upon his wise and patriotic endeavours; the poor, for whose benefit, after all, the law was chiefly calculated, were roused to such a pitch of rage, that they actually committed personal violence upon him.

For a people thus heartless, degraded, and yet glorying in their own shame, there was obviously no hope. Ever ready to sell themselves, they became the tools now of a

Catiline, now of a Cæsar; the only difference being, that the one was only their temporary scourge, while the other rivetted their chains during his own life, and left them chained and hopeless to a long list of successors.

A mighty moral lesson does the fate of Rome afford to both nations and individuals—namely, that as virtue is its own reward, so vice is its own punishment. Brave and virtuous Rome made its own territory invulnerable, and the territories of the despots of the East indefensible. But in the wealth of the East lay the fated destroyer of Roman virtue. From the love of luxury sprang corruption; from corruption, faction; from faction, the alternate triumph of a few tyrants, to terminate in the iron rule of a single despot. Cæsar indeed was slain—but the smooth subtlety of Augustus was not to be so conquered; and by degrees we see the senate which, in the time of Pyrrhus, had appeared an assemblage of mighty princes, so sunk in dotage and terror, as to assemble in trembling simulation of utmost anxiety, to advise Domitian how to order the dressing of his turbot!

A worthy termination of such a course ensued; a people who would not be saved by the wise and the good, were worthily punished by being helplessly subjected to the mocking, and yet sanguinary dominion of the brainless and the bad.

NO. III.—SELF-INSTRUCTOR IN BIOGRAPHY.

PETER THE GREAT.

We do not propose usually to give more than a brief sketch of the biographies to which we have occasion to point the attention of our readers; but, in the case of our present subject, we feel inclined to enter somewhat more into detail, partly on account of the really wonderful nature of the man, and partly on account of the difficulty of meeting elsewhere with any thing like an adequate description of his career, except in ponderous and expensive histories of the Russian empire.

Of the very early history of Russia, it will suffice for our present purpose to remark, that it is like the very early history of nearly all the nations of the earth; viz. so overlaid with tradition and fable, that it is utterly impossible for a conscientious historian to do more than lay the substance of the tale, as he finds it, before his readers, and then honestly assure them that he cannot recommend them to believe more than a twentieth part of it. The original name of the proper Russia was Muscovy, and it is supposed that the name of Russia is derived from *Rossa*, which signifies, *collected together*; a name significant of the country having been peopled by a union of people of various tribes. And this tallies well with the earliest descriptions of the Russians, who are spoken of as a variety of rude and fierce tribes, each governed by its own ruler, and just as commonly at war as at peace with each other. In fact, the descriptions given of our own British ancestors, as they were at the first landing of Julius Cæsar, would probably be perfectly applicable to the early Russians—due allowance being made for different habits produced by difference of climate.

In the tenth century, all the various tribes of Russians were united under the government of Waladimir, who assumed the title of grand duke. At his death, his sons quarrelled about the succession; the people became again divided into separate tribes, and, during the confusion of their intestine warfare, they were invaded and subdued by a numerous horde of Tartars, whose yoke they suffered under until the very end of the fourteenth century, when duke John, after a long series of sanguinary and obstinate conflicts, succeeded in

expelling the Tartars, and in uniting all the Russians under his own rule. In his son's reign a code of laws was, for the first time, given to the people; but for above a century afterwards, those laws were of little practical utility, the reign of every succeeding sovereign, until the accession of Peter, being so stormy as to render any great social improvement impracticable.

The *nominal* conversion of the Russians to Christianity took place as early as the year 804; but, for far more than a century after that date, the great body of the Russians continued in their heathen superstitions, and even sacrificed human victims. Still, though the progress of Christianity was slow among the Russians, it was not the less sure; and, as it did progress, it inevitably softened down the worst and most prominent asperities in the character of its new believers.

The chief change in the manners and customs of the Russians, of course, took place in the immediate vicinity of the court; and though the more obscure parts of the empire—to which duke John had added part of Livonia—and several Persian provinces on the shore of the Caspian sea, still remained in a state of almost extreme barbarism, the court had attained to tolerable refinement, when, at the early age of ten years, Peter Alexiowitz, subsequently surnamed "the Great," succeeded his brother Theodore on the throne of Russia.

Peter was proclaimed czar in 1682, but his title was immediately disputed by his sister Sophia, on behalf of their elder brother John. This prince had, in fact, been excluded from the throne on the ground of mental imbecility—the very quality which made the princess Sophia desire to see him on the throne, as she felt that she could govern him, but that Peter had too vigorous and proud a mind to be otherwise than governor of all with whom he came in contact. By her intrigues she caused a fierce revolt, and a sanguinary though short civil war, which terminated in both the princes being placed upon the throne.

If Sophia hoped that this arrangement would secure to her

the power she ardently desired to wield, she was not long in discovering the error of her anticipation. For, though she studiously caused his education to be most shamefully neglected, every day afforded new proof that his mind possessed a native and untameable vigour, which would infallibly render him conspicuous among princes. Enraged at every new bound that Peter made towards mental improvement, and dreading the arrival of a time when he would possess the power, not merely to thwart, but also to punish her unnatural and disloyal conduct, Sophia at length incited and headed a conspiracy, not merely against her brother's throne, but also against his life. Happily this most shameful plot was discovered, the accomplices of Sophia were capitally punished, and she herself was condemned to perpetual confinement in a monastery.

On attaining his eighteenth year, Peter, who, though still nominally sharing the throne with his brother, was virtually the sole czar, was married to Ottohessa Federoiina; and he now became daily more and more popular and powerful.

Before we proceed to give a detailed account of the reforms by which Peter so marvellously improved the condition of his people, and exalted the character and influence of his empire, we may advantageously give an anecdote of his early life, which very strikingly shews the *determination not to be conquered*, which was so potent an element of his success.

While quite an infant he was awakened, while riding in a carriage, by the roar of a tremendous cataract. The sudden fright threw him into a violent fever, and had the still further ill effect of giving him a perfect horror of approaching running water. This antipathy, which would have been of incalculable detriment to him in his busy and locomotive career, he was induced to overcome by prince Gallizen, who pointed out to him the absurdity of fearing water, rode repeatedly through a narrow brook in his presence, and caused some of the people to even walk through it. Ashamed to be alarmed at what he saw other persons do, as the merest and most trivial matter of course, the young czar at length mustered courage to cross the brook himself, and from that time forth took every possible opportunity to familiarise himself with water, until he not merely got rid of his ridiculous antipathy, but even became remarkably partial to aquatic occupations and diversions. A similar spirit of determination it was that made him capable of so greatly improving his empire; and it is in this spirit of determination that we chiefly would have our readers take this remarkable man for their exemplar.

Just at the time when Peter had obtained the real mastery of the country he was subsequently so wonderfully to raise in the scale of nations, he was fortunate enough to have in his confidence a young Swiss named Le Fort. This gentleman was a travelled man as well as a man of genius and a scholar; and to his advice Peter was indebted for some of the earliest improvements he ventured upon making; especially as regarded the discipline and the equipment of his troops. Indeed, there is no doubt that to the advice of this intelligent gentleman Peter owed much of the ardour for improvement, which at length ripened into an absolute passion. In saying this, however, we must very distinctly and entirely repudiate any wish to detract from the czar's own fine native genius; but, fine as that was, it may very fairly be presumed that the success which his earlier and more limited reforms met with, on account of the aid afforded by the advice and information of Le Fort, greatly tended to increase his confidence in the practicability of his subsequent and more gigantic attempts.

Having improved both the discipline and the equipment

of the Russian army, Peter next turned his attention to the more important as well as more difficult task, not of *improving* but of absolutely *creating* a Russian navy.

We have shown, that when he became convinced of the groundlessness of his early antipathy to, and dread of the water, he so sternly addressed himself to the task of overcoming his dislike to that element, that he not only succeeded in doing that, but even in acquiring a great fondness for aquatic amusements. In pursuing this kind of amusement, he was led to reflect upon the very great benefit his dominions would derive from the possession of a navy; and he determined, in despite of the real difficulty and seeming impossibility of the achievement, that he would secure this benefit in addition to those he had already secured.

The mere abstract determination was, under all the circumstances, indicative of a high and commanding genius; for, to ordinary men, the task of giving Russia a navy, would have seemed as impossible as that of colonizing the moon. For there was only the white sea open to his ships, even if he could build them; and he had neither the *matériel* nor the artists requisite for building them. But Peter saw that Russia *ought* to have a fleet; and that fact was quite sufficient to make him determine that she should have one. And, in pursuance of this determination, he forthwith made preparation for visiting the chief maritime states of Europe, in order that he might personally become acquainted with the various departments of ship-building. Previous to his departure on this truly great errand, he gave a striking proof of his capacity for ruling. Not satisfied with placing the various state offices in the hands of the persons upon whom he could best depend for loyalty to himself, and for justice to his subjects, he took the further politic precaution of sending abroad all the young and ambitious of his nobles—at once rendering it impossible for them to raise rebellions during his absence—and rendering it certain, that, after his and their returns, the habits and the knowledge they would infallibly import, would be of important service in promoting the refinement of Russia. To render the positive good to result from their travels the more certain, he sent them to various countries, charged each of them with the acquisition of some particular branch of knowledge, and allowed each a sufficient annual sum to defray all his reasonable expenses.

Having taken all possible precaution against injury to his authority during his absence, he left Russia in May, 1697. In order that public recognition of his rank might not interfere with his desire to acquire useful knowledge, he travelled *incognito* in the suit of an embassy—of which Le Fort was the ostensible chief—charged with messages of compliment and proposals of commerce, to all courts which he desired to visit. The route he determined upon for this novel embassy, was, through Prussia, thence to Holland, thence to England, back again to Holland, thence to Vienna, and thence to Venice. When stopping at any seaport, he used to assume the rough garb of the skipper of a merchant vessel, and thus go unnoticed and undisturbed from dock to dock, obtaining that information of which he was so laudably desirous.

But merely theoretical information, valuable as that undoubtedly was, would by no means satisfy Peter; who, on his second visit to Holland, departed privately from the Hague, proceeded to Amsterdam, and there entered himself in a dock-yard, as a common shipwright, under the name of Peter Michaeloff. And such was his ardour for improvement, that he is said to have worked infinitely harder than any of the peasant-born men with whom he thus nobly associated himself.

William the Third, king of England, was in Holland while Peter was thus laudably labouring for the future benefit of his subjects; and the two monarchs became so partial to each other, that the czar received and accepted an invitation to visit London, where he spent nearly three months; during which time his incessant curiosity put him in possession of much valuable information.

We may remark here, that with all the czar's great and genuine desire to raise his subjects from their semi-barbarism, he appears to have retained a good spice of the semi-barbarism in his own person. As he was known to be exceedingly anxious to study every thing connected with the art of ship-building, the residence of Mr. Evelyn, Saye's Court, Deptford, was hired for him and his suite, and a doorway made so that he could pass from the garden into Deptford dock-yard. The garden, upon which the gifted author of the "*Sylva*" set so much store, contained a beautiful holly hedge; and one of the czar's favourite diversions was the trundling a wheelbarrow through the hedge, and over the adjacent flower-beds, by way of wholesome morning exercise.

In poor Mr. Evelyn's "diary," we find his servant writing to him "There is a house full of people *right nasty*," and in the "*Sylva*," he himself says, bitterly, "Is there under the heavens a more glorious and refreshing object of this kind, than an impregnable hedge of about four hundred feet in length, five in diameter, and nine in height, which I can still show in my ruined garden at Saye's Court—thanks to the czar of Muscovy?"

When in London, too, his amusement was principally the not very refined one of smoking tobacco, and drinking brandy and beer, at a petty public house near Tower Hill.

After quitting England, Peter visited several parts of Germany, and was just about to proceed to Venice, when he received information that forty thousand of his subjects had revolted; and he hurried home on the instant. His presence and his vigorous measures soon restored public order; and he then proceeded to make the reforms which his experience in foreign countries had taught him to believe at once desirable and practicable. Of these reforms, our limits will allow us to describe only the principal ones, and even those but very briefly.

Though Peter's chief object in travelling had been to obtain insight into the best means of raising and maintaining an efficient naval force, his inquisitive and shrewd mind could not fail to perceive numerous other points upon which his subjects were lamentably inferior to the more civilized and polished nations of Europe. In fact, he seems to have travelled with a determination to see every thing that was to be seen; and to reflect upon, and to turn to practical account, every thing that he saw. From the most important fiscal arrangements, to the shape or material of a garment, nothing seems to have escaped his eagle glance; and, with the truest practical wisdom, he seems to have considered that nothing was trifling, except in the eyes of idle triflers, to whom nothing but veritable trifles are important.

Peter was master, it is true, of a vast territory, and of a numerous people; but his people were a mere horde of semi-barbarians, too indolent even to aim at an improvement in their squalid and straitened condition. Nor was the exceeding indolence of his subjects the most difficult obstacle which Peter had to surmount, in attempting to bring about their moral regeneration; for they were at once too ignorant to be effectually addressed by mere reasoning, and too bold and turbulent to shrink from breaking out into an open revolt when severer measures of reform were resorted to.

Peter added to all his other high qualities, an indomitable firmness of purpose; and, having once commenced his reforms, he steadily followed them up to their conclusion.

We have seen that Peter, while travelling, turned his attention towards both the higher branches of politics, and the lower ones of mere manners. Among the former, he had carefully studied the mode in which the other monarchs of Europe collected their revenue; and a shrewd mind like his could scarcely study this subject without seeing that the fiscal regulations of Russia would admit of very great improvement. Hitherto the nobles of Russia had been entrusted with the collection of the revenue; and so little check upon them was there, that while they had shamefully oppressed and pillaged the people, they had also invariably defrauded the crown, and kept "the lion's share" of their vast collections for their own use. To this state of things Peter at once put an end, by embodying the necessary number of official collectors of the revenue, and making each of them responsible for the punctual and honest performance of his duty.

Peter next turned his attention to the inconvenient and ungraceful garment which was at that time almost universally worn in Russia, viz. a long cloak gathered in plaits at the hips, but hanging loosely and voluminously down to the feet. This national garb Peter ordered to be set aside in favour of clothes in the English fashion, specimens of which he caused to be exhibited at each of the gates of the city of Moscow. To make the change more rapid, he ordered that every one, who, after a certain day, should continue to adhere to the old and prohibited garment, should kneel down and have the skirts of it cut off, or pay a fine (amounting to about two shillings English,) to the officers appointed to carry this edict into execution. Similar changes were ordered in the apparel of the ladies, and the changes thus wrought in the capital easily and spontaneously extended themselves to the provinces; and though the men made bitter complaints at being compelled to part with their cherished beards, they gradually learned not only to comply with Peter's regulations, but even to approve of them. These measures were only the preludes to reforms upon points of far greater importance. The patriarch of the Russian church not only enjoyed vast revenues, but also had a very great power, which was not always exerted favourably to the head of the state; and Peter took the opportunity of the patriarch's decease, to notify that no other should be elected, he himself assuming the office of head and protector of the church. In the marriages, the literature, and in many of the customs of the Russians, Peter made divers reforms; and he not only gave to his army a perfect discipline, but also called a navy into existence and activity. But in his desire for a powerful navy originated the most serious stain that rests upon his otherwise truly great character; for, urged on by his fervent desire to obtain possession of harbours and a line of sea-coast, he proclaimed a war against Charles XII. of Sweden; and for twenty years the two nations were alternately scourged by war, pestilence, and famine.

Among the various places which the czar obtained possession of during this most unjust war, was Notteburg, about a mile below which, at the mouth of the Neva, he observed several lone muddy islands. Here he determined to build a city, whence he might command the navigation of the Baltic; and in spite of inundation and pestilence—in spite of the natural defects of the situation, and the all but brutal ignorance of his workmen, the muddy islands were converted into the city of Petersburg, and its harbour filled with vessels in the short space of three years, from the time when Peter first commenced his gigantic task.

It is scarcely requisite, we hope, to point out to our readers that we do not by any means hold up the character of Peter as one to be admired or imitated as a whole. His war with Sweden was flagrantly unjust; and the miseries his injustice inflicted upon both Swedes and Russians are not to be even thought of without horror and loathing. But his activity, his firmness of purpose, and his wonderful industry—these are well worthy of admiration and imitation on the part of those who desire to be useful or successful, no matter what may be their line of life.

Peter died in the year 1725, in the fifty-fourth year of his age.

ASTROLOGY.

THE impudent and impious practice of pretending to foretell events by the knowledge of the stars, is a disgraceful relic of the ignorance which existed in darker ages, when mankind were easily made the dupes of designing men, who pretended to a knowledge of that which is utterly beyond the powers of the human mind—the nature of future events, and the mysterious influences by which they were regulated. To call astrology a science, would be an insult to common sense; and it is truly disgraceful that, even in the present enlightened age, there should be found persons weak-minded enough to countenance the attempts of certain artful men, who, like our quacks in medicine, reap a rich harvest from the credulity of their victims.

To suppose that we can gain a knowledge of future events from the motions of the heavenly bodies, is inconsistent not only with the dictates of our religion, but also with reason and common sense. We are enjoined in the divine writings, to limit our inquiries to present events. "Sufficient unto the day is the evil thereof," says our Saviour; by which he meant, that it was wrong to anticipate that which was to happen on the morrow; and, indeed, our own reason tells us that a knowledge of futurity, whether it spoke of good or ill, could only be productive of the greatest disquietude and unhappiness. With what feverish impatience do we look forward to any anticipated good fortune! How restless and unhappy we are, until the time arrives for us to enjoy it! and, on the other hand, what a continual state of dread and mental agony should we be in, were we to know, beforehand, the crosses and calamities which inevitably await us, and which the utmost extent of our mental powers could not possibly avert!

Dependence on such delusions as are held out by astrology, originated only in ages of extreme ignorance, when every thing that could not be understood was considered to be miraculous. Not only were the magnificent wonders of the heavens supposed to afford mysterious influences, but even the flight of birds, or the appearance of disgusting entrails gave, as was impiously supposed, an unerring insight into the fate of empires and kings; the priests of those days pretending, in order to gratify the designs of those whom they wished to support, that they derived their knowledge from Divine assistance.

Such were the absurdities which marked the pagan worship; and we cannot refrain from expressing our sincere regret, that, even with the light of the gospel to guide us in the exercise of our mental energies, and the extraordinary advancement which we have made in science, there should not only be known to exist in England, such a pretended science as astrology, but that people should be found ignorant or silly enough to place the slightest degree

of faith in such an impudent quackery. True it is, that some of the predictions which have been put forth have been verified by the event; but this may always be traced to the nature of the prophecy itself, and the sagacity of the person who has made it. It is, in fact, by no means a difficult matter for any person, even of common intellectual powers and some acuteness in discerning the signs of the times, to conjecture what will probably occur in the political world, and so cautiously to announce it, as not to commit himself if his prophecy fails. But we have said enough upon this subject, and should hardly have devoted so much space to the notice of it, were it not our duty to expose all ignorant pretensions to the name of science, and guard our more juvenile readers from being cheated by the catchpenny trash which is published under the title of "*Prophetic Almanacks*," and "*Treatises on Astrology*," which invariably fail to prophesy the truth, except when they prophesy after the event is, humanly speaking, certain.

ON THE PROGRESS OF HOROLOGY, FROM THE EARLIEST PERIOD, TO THE PRESENT TIME.

OUR attention has been called to this subject by a very clever little tract, by Mr. E. Henderson. It displays great reading, as well as a very perfect knowledge of every branch of the subject; and we are happy to see that so useful a work has already arrived at the somewhat rare honour of a second edition. If, as is very probable, it shall reach a third, we would suggest to its clever author the necessity of a careful revision as to mere style. What are called *pet* words and phrases, are, under any circumstances, productive of an unpleasant effect; but when the especial *pets* are not merely unnecessarily obtruded, but also inelegant, they should be the more especially eschewed. Our author, for instance, is very fond of the phrase—it "goes a far way;" a phrase which has surely nothing to recommend it, unless it be its exceeding barbarism. In page 20, there is a very glaring printer's error, which makes the author, when speaking of Dr. Franklin and Mr. Fergusson, say, "Their improvements in clock-work *does* not stand in such a high scale," &c. These blemishes being removed, the work will in every way do credit to the author, from whose learned and accurate production we give the following extracts, merely premising that our readers will find their account in consulting the work itself, in which there is the most curious and recondite information on the state of horology among the ancients.

"A clock of almost miraculous properties was constructed by a Geneva artist, named Droz, towards the end of the last century. If the account may be credited, the clock in question was so constructed as to perform the following surprising movements. "On the clock were exhibited a negro, a shepherd, and a dog; when the clock struck, the shepherd played six times on his flute, and the dog approached and fawned upon him. This clock being exhibited to the king of Spain, who was much delighted with it, M. Droz said, 'The gentleness of my dog is his least merit. If your majesty will touch one of the apples in the basket by his side, you will admire his fidelity.' The king did so, and the dog flew at his hand and barked so loudly as to be responded to by a living dog which was in the room. At this, some courtiers, not doubting that it was an affair of witchcraft, hastily crossed themselves and left the room. The minister of marine stayed behind, and M. Droz desiring him to ask the negro the time of day, he did so, but remained unanswered.

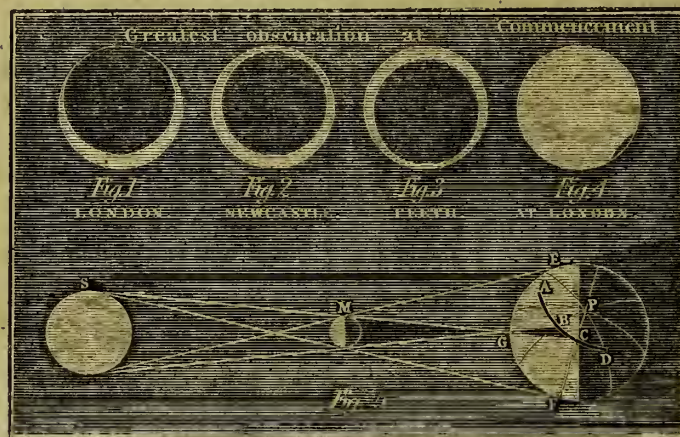
M. Droz informed him that this arose from the negro being ignorant of Spanish; upon which the minister repeated his question in French, when the negro instantly replied to him—a prodigy which so astounded the minister, that he, too, made a hasty retreat, declaring that it was the work of the devil.”

Even the Genoese, famous as they are for their skill in clock-work, are not superior to English artists. Our next, which must also be our last extract, is descriptive of two clocks made by English artists, and sent as presents from the East India Company to the emperor of China.

“These two clocks are in the form of chariots, in each of which a lady is seated, in a fine attitude, leaning her right hand on a part of the chariot, under which appears a clock of curious workmanship, little larger than a shilling, that strikes, repeats, and goes for eight days. On the lady’s finger sits a bird finely modelled, and set with diamonds and rubies, with its wings expanded as if about to fly, and which actually flutters for a considerable time on touching a diamond button. The body of the bird, in which are contained some of the wheels which animate it, is less than the sixteenth part of an inch. The lady holds in her left hand a golden tube, little thicker than a pin, on the top of

which is a small round box, to which is fixed a circular ornament, no larger than a sixpence, and set in diamonds, which goes round in three hours, in a constant regular motion. Over the lady’s head is a double umbrella, supported by a small fluted pillar not thicker than a common quill, under the cover of which a bell is fixed, at a considerable distance from the clock, with which it seems to have no connexion, but from which a communication is secretly conveyed, that regularly strikes the hour, and repeats the same at pleasure by touching a diamond button fixed to the clock below. At the feet of the lady is a golden dog, before which, from the point of the chariot, are two birds fixed on spiral springs, having their wings and feathers set with stones of various colours, and they appear as if flying away with the chariot, which, from another secret motion, is contrived to run in any direction, either straight or circular, while a boy that lays hold of the chariot behind, appears to push it forward. Above the umbrella are flowers and ornaments of precious stones, and it terminates with a flying dragon set in the same manner. The whole is of gold most curiously executed, and embellished with rubies and pearl.

ON ECLIPSES.



ANNULAR ECLIPSE OF THE SUN.

ONE of the vast multitude of advantages which result to us from our advance in knowledge and powers of reasoning, is that of our being able to look with delighted curiosity upon a phenomenon to which our ancestors could not turn their attention without horror and dismay. There will doubtless be a time when even the few superstitions which still remain in their former power in our land, will be the scoff and scorn of even the merest schoolboy. For, already, what was once so potent as to alarm the nations out of all propriety of manly and reasonable demeanour, and to enable impostors not merely to affright, but also to plunder, perfect multitudes of weak-minded and ill taught individuals, is now only regarded—even as are the untold-for and unspun-for attire of the beautiful lily, and the surpassing loveliness of the rainbow—as another and a perfectly harmless phenomenon of that nature through which we have learned humbly, thankfully, trustfully, and fearlessly to

“Look to nature’s God.”

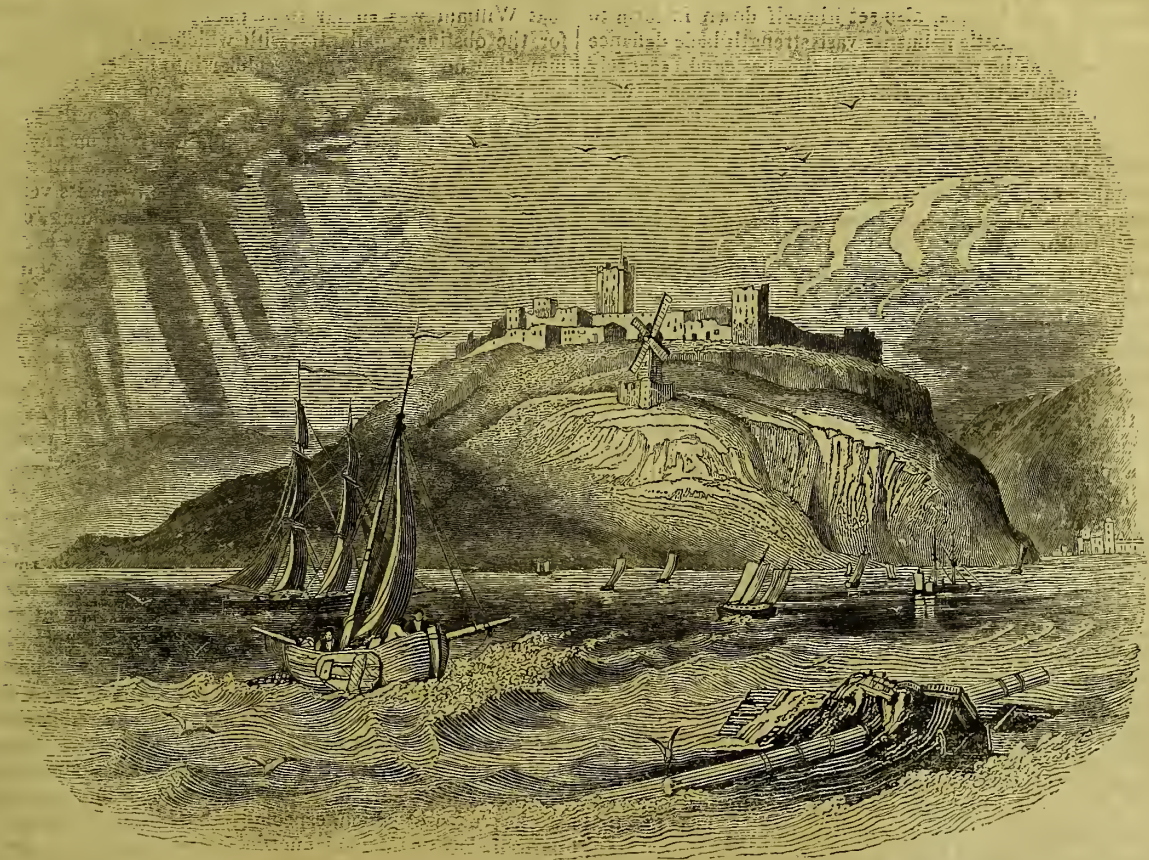
One of the very many subjects which the increase of

knowledge has thus converted, from a source of horror and deprecation, to a subject of lively and enlightened curiosity, is that of “eclipses.” Among even the most enlightened nations of the East, an eclipse is judged to be at once the omen and the precursor of evils to come; and the unhappy people deprecate the evil by addressing the strangest supplications, alternated by equally strange imprecations, to the supposed monster whose dread shadow puts the earth, for the time, in darkness. Nor has this superstitious horror been confined to the natives of the East. Civilized and haughty Europe has been “frightened from its propriety” more than once by this equally simple, harmless, and—as the solar system is constituted—inevitable phenomenon. And England has borne her full share in this most absurd, because unreasonable and unreasoning dread. On one occasion, an approaching eclipse threw the inhabitants of London into such consternation, that artful and scheming individuals succeeded in purchasing landed and other property at a tenth of its real value—the swindlers representing, and the un-

their *actions*, we beg to rejoin that levity of phrase rarely fails to lead to levity of thought, first, and then to levity of act. And, moreover, to those who may feel inclined to think a *mere phrase* of so very little importance, we beg to say, that even if in our mouths this sort of speaking *may* be a *mere phrase*, it is most likely to be, in the hearts of those who hear it, the *parent of thought*.

We have all, more or less, an influence on the opinions, the feelings, and subsequently on the conduct of those with

whom we associate. The sublime gift of speech is not entrusted to us for the purpose of saying what *means nothing*; and that, in the most favourable view of the case, is the utmost that can be said in defence of this phrase, and those which resemble it. And, however idly and thoughtlessly such dangerous words may be used by the speaker of them, it will but too rarely happen that the *hearers* of them will fail to apply them practically, and to the full extent of their evil tendency.



BAMBOROUGH CASTLE.

In the county of Northumberland, situated on a lofty hill near the sea, is what remains of the ancient, and formerly very strong castle, of which the accompanying Engraving is an accurate representation.

The precise date of the foundation of this structure it would now be but vain to endeavour to ascertain. The building is generally attributed, however, to the Romans, and it is certainly of very great antiquity; for as early as the time of the Heptarchy, we find that it was a fortress of great strength, and of considerable importance in repelling the frequent and savage incursions of the Scots.

In common with all the old castles of England, this fortress was often and hotly besieged in the domestic wars which were formerly so common, and of which, thanks to the glorious and humanizing influence of civilisation, we may now hope that there will never be a repetition. Of some few of these sieges, as being so connected and so illustrative of this venerable ruin, we proceed to give a brief account.

In the seventh century, Ofred, king of Northumberland, being at feud with one of the most powerful of his nobles, who had the audacity to aim at the authority of the young king, his tutor (for Ofred was as yet a minor) shut himself and his royal pupil up in this castle. The would be usurper set himself down before the castle with a numerous and well-disciplined army. The siege was commenced and carried on in form and with great spirit; and though the besieged defended themselves very gallantly, they were so hotly and pertinaciously assailed by their foes, that the young monarch was in imminent danger of being compelled to surrender at discretion; in which case, when we reflect upon the barbarism of the age, and the actual ferocity of its warlike usages, there is but little room to doubt that young Ofred would have furnished another illustration of the terribly true saying—that “from the prisons of dethroned kings to their graves there is but a single step.” But young as Ofred was, he had already succeeded in winning the affections of his subjects; and when the stout Northum-

brians heard of the beleaguered and perilous situation of their king, they assembled in vast numbers, and hastened towards the scene of action. Their appearance speedily changed the aspect of affairs; the besiegers had to withstand at once the onslaught of the new comers and the furious sortie of the besieged. A desperate action ensued, in which the rebels were totally defeated, with a terrible amount of loss in killed and wounded. Their leader, after making attempts, as desperate as they were vain, to redeem the fortune of the day, was made prisoner, and, after summary trial, was condemned and executed as a traitor.

Penda, king of Murcia, also set himself down in form to the siege of this castle; but its vast strength bade defiance to such means as he possessed, and the besieged, securely entrenched behind their massive and lofty battlements, were enabled to make sad havoc among his troops. Enraged at the fruitlessness of his efforts, and at the losses he daily sustained, the besieger at length caused his troops to fell a vast number of trees in the adjacent forest: a large pile of fuel being thus obtained, it was arranged in the most promising situations and set on fire. The attempt at arson proved to the full as unfortunate to Penda as his attempts at escalade had been; for the wind not only prevented the flames from doing any damage to the castle, but blew them directly upon the camp of the besiegers, which they utterly destroyed; and Bamborough Castle was once again free from the presence of a foe.

In the reign of William the Conqueror this castle was vigorously besieged by Malcolm Canmore, king of Scotland, with a powerful and well-disciplined force. The task of defending it devolved upon Waltheof, earl of Northumberland, and so well did he acquit himself, that he not only compelled the Scots to raise the siege, but also captured a great many of the besiegers, including some of the principal of the Scottish nobility. It is painful to be obliged to record that Waltheof proved himself to be to the full as cruel as he was courageous, by putting the whole of his unfortunate prisoners to death, and causing their heads to be set upon poles in various parts of the country.

In the reign of William Rufus the castle was as gallantly defended as it had been by Waltheof, but by no means in so loyal a cause. Robert Mowbray, having greatly distinguished himself in the defeat of Malcolm, king of Scotland, in the sanguinary contest in which that king lost his life, either was, or imagined himself, treated with less distinction than this and other eminent services entitled him to expect. The discontent of powerful men of that day was easily converted into treason, and Mowbray, from being one of the bravest and most accomplished of the warriors of his king, now became the leader, as well as instigator, of a conspiracy against his crown and life.

So well did Mowbray and his confederates conceal their treasonable intentions, that the king received no intelligence of their traitorous proceedings until he had arrived at the very borders of Wales, whither he had marched to put down an insurrection. With a promptitude which at once merited and commanded success, he altered his route on the instant, and marched against the rebels, who had fortified themselves in Bamborough Castle. On arriving before the castle, William, sensible that there was no hope of carrying so strong a place by storm, coolly set himself down to blockade it. The vigilance of the blockade prevented the garrison from receiving any supply of provision, and the blockaded force was consequently exposed to very severe and protracted suffering. But Mowbray contrived to elude the vigilance, great as it was, of the royal force, and escaped to the convent of Tynemouth, where he was taken prisoner, after

making a desperate resistance. On being taken, Mowbray was led before the walls of Bamborough Castle, which still held out under the governance of Mowbray's brother-in-law Morell; and the latter was solemnly assured, that unless he threw open the gates within a given space of time, the prisoner's eyes should be put out. Mowbray's wife, who was still in the castle, terrified at the horrible danger in which her husband was placed, exerted herself so effectually with her brother, that she induced him to comply with the king's demand. The castle was yielded up to the king at the appointed time; and it is truly pleasing to be able to add, that William was so far from taking a sanguinary revenge for the obstinate gallantry with which Morell had opposed him, that he took that brave soldier into his especial favour, and conferred honours and commands upon him.

Of the remains of the castle our engraving will give our readers a better idea than they could derive from any verbal description. At the foot of the castle hill is the little village of Bamborough, which is remarkable chiefly for its venerable and ancient church,—an exceedingly neat building, consisting of a chancel and side aisles, and said to have been built by Ofwald, king of Northumberland; *i. e.* as long ago as the early part of the eighth century.

SIR ISAAC NEWTON.

To honourable minds it is painful to think ill of *any* one; but it is doubly painful to think ill of those whose genius has enlightened the world, and whose intellectual eminence seems so strangely incompatible with any moral obliquity. Truth, undoubtedly, should be the first consideration, equally of the biographer and of the critic; but nothing short of the most irrefragable proofs should induce us to think ill of those to whom the world is indebted for lessons of very precious wisdom.

During all the very long time which has elapsed since the death of Sir Isaac Newton, his moral character has been uniformly represented and believed to have been upon a level with his intellectual character; and upon mere humanity it would not be easy to pass any higher encomium. The kindness, the meekness, the singular suavity and simplicity of this great man, have been praised in a thousand biographical works; most of which, especially those intended for juvenile perusal, have contained anecdotes, placing one or more of these qualities very strikingly on record. Rarely, indeed, has any great man passed through a long life so free from the strife and bitterness of controversy, as did the illustrious Newton; and we should almost as soon have anticipated his return from the grave as his being subjected to charges of mean, malevolent, and envious spitefulness. Such charges, however, are now for the first time brought forward, and it becomes all lovers of learning seriously and anxiously to examine how far those charges are founded in fact.

Mr. Bailly, an eminent astronomer, has just published a *Memoir of Flamsteed*, the father and founder of English practical Astronomy.* From papers found in the Royal Observatory at Greenwich, and from a long series of letters between Flamsteed and two of his friends, a very interesting book has been made by Mr. Bailly; and though we decidedly dissent from the view which this volume tends to give us of the character of Newton, we are in merest justice bound to admit that Mr. Bailly has strictly confined himself to his duty as a biographer.

* The volume is printed at the public charge, and distributed *gratis* among the learned Societies.

Flamsteed's early life we need take little notice of, as it does not bear upon our present subject; it will suffice to say, that after completing his education at Cambridge, he took holy orders, and was presented to the living of Burstow, in Surrey. Even while quite a youth he had attained to so great a skill in astronomy as to make some exceedingly difficult and valuable discoveries; and when the Observatory of Greenwich was founded, Flamsteed was appointed to the important office of Astronomer Royal. His salary was low, and he was much straitened for want of proper instruments; but it must be remembered that he had the revenue of his clerical, as well as of his lay appointment; and the manner in which he complains of his situation at the Observatory shows him to have been a man sadly wanting both in dignity and mildness of temper; and to this point we would beg very particularly to direct the reader's attention.

In 1654, Newton solicited the use of some of Flamsteed's observations on the moon's phases, to aid the completion of "Newton's Theory of the Moon's Motion, as derived from Gravitation." Flamsteed, who had been very considerably aided by Newton, complied with this request, but stipulated that they should not be shown to any one. Soon afterward he accused Newton of having shown them to Halley; and though Newton mildly, but positively, and with dignity denied having done so, Flamsteed urged the charge with as much bitterness and rudeness as though he had full assurance of its truth; and from this time he seems to have hated Halley, who, as a practical astronomer, was only and scarcely his inferior, and to have thought every word spoken in praise of Newton an insult offered to himself. This truly unhappy and pitiable state of mind makes its appearance in almost every one of his letters; *and surely that alone ought to go very far towards discrediting his charges against that great man, in whose dispraise no one else has ever spoken.*

He speaks continually of Newton unjustly treating him, yet he still corresponded with him; and though he was obviously dissatisfied with his situation at Greenwich, he clung to it with a fierce tenacity, lest Halley should be appointed to be his successor. And it is pretty evident that the abuse which Flamsteed lavishes upon Newton was far more due to Halley, who, as a practical man of the world, and of science, could very easily exert an influence over a retired and unworldly man like Newton.

To enter into a detailed statement of the real and imaginary grievances of Flamsteed would demand more space than we can spare; but we may say, in general terms, first, that we think Flamsteed had very great reason to complain of the treatment he received; secondly, that we are persuaded, nevertheless, that his impracticable temper was a very chief cause of his vexations; and thirdly, that even on Flamsteed's own showing, Sir Isaac Newton was not the instigator or a deviser of the proceedings of which Flamsteed complains.

To those of our readers who wish to enter more particularly into the question, we would strongly recommend a pamphlet written in defence of Newton, by the Rev. W. Whewell. The character of so great a man as Newton is national property; and as there will be but too many writers glad to seize upon any allegations against him, it is of importance, at the least, to *warn* against misrepresentation.

THE LATE ECLIPSE.

WE are happy to know, that to even more than our usual very large number of readers, our illustrated article gave the needful preparatory information to enable them to enjoy this truly magnificent phenomenon. Upon one point only do our inquiries in numerous directions, and among persons

of all ranks and ages, teach us that our article left any room for doubt or difficulty, viz. as to the degree of darkness. We find, that instead of the lurid and deep gloom which commonly heralds in the thunder-storm, it was expected that there would be a pitchy darkness over the land, as dense as that of a November night. Under this impression divine service was, we understand, very generally postponed; and on our way home from attending the morning service we heard some very amusing expressions of juvenile and feminine anxiety to be home "before it gets dark."

The smoke-canopied atmosphere of London no doubt made a considerable difference in the apparent splendour of the eclipse; but, even with this drawback, "it was a sight so grand, that we need scarcely wonder that ignorant and heathen people have been driven to the utmost pitch of terrified agony by the occurrence of such a phenomenon."

All the villages situated on eminences, within ten or twelve miles of London, were, we are told, literally crowded with persons anxious to see the eclipse through the most favourable medium possible.

GOOD TEMPER IN CONVERSATION.

THE merely frivolous in conversation is bad enough, and it is, unfortunately, but too common. A tithe of the time expended upon triviality, and what is called small talk, would, if properly applied to a real and zealous endeavour at self-improvement, enable any young man of average intellect to make himself master of the rudiments, at least of two or three languages or sciences. The certainty that this is the case makes us look with very great dislike upon all unnecessary devotion of time to mere trifling: we say to all *unnecessary* devotion of time, because, heartily favourable as we are to zealous study, we perfectly well know that those who live in society must occasionally comply with the customs of society; nor do we think that brief and unfrequent recreation will either wean the mind from a real love of study, or cause study to be less keenly and successfully pursued.

But if we hold all mere trifling in conversation to be both contemptible and injurious, we deem a passion for sharp disputation, where the love of display, and not the love of truth, is the motive, to be equally contemptible and infinitely more injurious.

An ill-tempered style of talking is a sure mark of a very imperfectly cultivated mind. No matter what store of classical or scientific attainment such style may display; no matter how completely and crushingly triumphant may be the victory; the victor, nevertheless, is an *ill educated* man; he has not learned that his knowledge has higher uses than the use of being the weapon of a waspish temper and an unfeeling heart. The more truly, the more variously accomplished the scholar, the milder and more forbearing should be the tones and the demeanour of the man. Is it for him to endeavour to show that learning is

— "harsh and crabbed, as dull fools suppose?"

What! has he "shunned delights, and lived laborious days" in the pursuit of knowledge? Does he pride himself upon the glorious, the invaluable acquisitions he has made by dint of arduous and sustained study, and does now lay himself out to encourage the dull in their inglorious sloth, and to discourage the nobler-minded, who are just commencing their career, by showing that knowledge may consist with want of manners, want of feeling, and an utter destitution of all real desire to put knowledge to its proper use? No! let no such

man receive the ennobled and ennobling name of scholar! He is but a very tyro in the best of all studies; and he turns the medicament and healing balm of the soul into corroding bitterness, instead of imitating the chemist, who turns the deadliest bodily poisons into the potent medicine that saves the bodily life.

Nothing is more contemptibly easy than to display the kind of captious and disputatious temper to which we allude. It is surely no difficult matter to make the eye flash, and to raise the voice as though we were endeavouring to outbawl the tempest; and it is as surely very easy to interrupt our interlocutors at their every third word, contradict the most authentic facts they bring forward, and stoutly maintain our own opinions, without condescending to particulars, or supporting our opinions by proof, or even argument. All this is perfectly easy; and if our opponent be a very timid and bashful man, and our other auditors be very weak and ill-judging people, it is quite possible that the victory may for the time be with us. Even in that extreme case, what defeat could be more shameful to us than such a victory?

What have we succeeded in proving?—simply that we are unworthy of the knowledge we boast of possessing! Our opponent, though silenced by our insolent violence, is very far indeed from being converted from his own opinion, or to ours; and if any of the auditors have bestowed the applause of eye or tongue, so dear to our petty and low vanity, that applause is itself the sign and the instrument of our condemnation; for the approbation of fools is equivalent to the censure of the wise; and (supposing that we have any of the

sense we so much pride ourselves upon) we cannot but be conscious that none but fools could have tolerated, far less praised, our want of sense, of feeling, and of politeness.

No rank, station, age, or eminence in literature or science, can make the kind of conduct of which we have been speaking any otherwise than exceedingly disgusting and unscholarly; but in those who are the most liable to be guilty of it, *viz.* young, inexperienced, and—even as to scholastical matters—only half-taught men, it is more dangerous. The former sort of men may possibly be so far beyond all dependence upon the opinion of others, that their conduct is reprehensible only on account of its insolent tyranny; but the case is very different with the latter; they not only insult others, but they also are guilty of most sottish and inexcusable injury to themselves; they prejudice all reasonable and wise men against them; they render all such men reluctant to give them advice or information, lest the return should be insult; and they never *unfairly* put down an opponent without making an *enemy*; and he who begins to make enemies in his youth is tolerably sure to be destitute of friends long enough before he becomes old.

Even wit is a dangerous, nay, very often, a fatal gift; but the disputatious temper to which we have alluded is so hostile to all the best interests, and so incompatible with all the best feelings of the young, that even had we no other argument than their mere self-interest, we should call upon our readers to crush the very first symptoms of an indication to such a temper, even as they would crush a young, but a most deadly serpent.

NO. II.—SELF-INSTRUCTOR IN ENGLISH COMPOSITION.

HINTS ON COMPOSITION.

ALTHOUGH it is not necessary, or even desirable, that every one should be, in the usual acceptation of the term, an author, there are in almost every one's lifetime certain occasions upon which it is of importance to have the power of lucidly and neatly writing his thoughts. While, therefore, it will be distinctly understood that we by no means wish to encourage precocious authorship, while, indeed, we would strenuously dissuade from authorship as a profession,* we think it necessary to point out the propriety of obtaining the power of writing a correct and lucid English style.

To insist upon the necessity of speaking correct English would be deemed superfluous; this is so obvious that the injunction would be a mere supererogation. But many who are quite aware of the necessity of speaking good English are perhaps not so well aware that to write good English is to speak it; only with this difference (and this advantage, too,) that in writing we speak to the eyes of those who are too far off to be audibly addressed.

Washington Irving, himself, as a writer of pure English, scarcely inferior to the great Addison, humorously describes, or rather makes the sage Linkum Fidelius describe "style" as being, in fact, "style;" or in other words he hints, though of course only in jest, that attention to style is, in fact, mere labour in vain. As a jest this may pass current without injury to any one; but speaking seriously of style, we must view it as any thing but an unimportant matter. Style, in point of fact, concerns both the matter and manner of our composition, and is to composition what diction,

tone, and gesture are to speech. Scarcely any one, we imagine, needs to be told how different an effect words of the very same sense may be made to produce by the manner and tone in which they are spoken. We are obliged to exert not a little of that self-control which forms so important a part of good-breeding, when we are addressed by a person who draws out his words and diverges from subject to subject, expending far more time upon utterly irrelevant episodes than he bestows upon the proper matter of his discourse. A person of this sort not merely wearies us, but he also conveys his meaning to us so obscurely and indistinctly, that our distracted and wearied attention cannot do any thing like justice to his information. No one will deny that this fault, or any fault productive of similar pain to one party, and of possible injury to both parties, is a fault so grave that very great pains would be well bestowed in getting rid of it. Now composition may be obscure and involved, tortuous and difficult, just as far as oral language may be; moreover as the mass of mankind rarely have any occasion to write at all except when the occasion is of very great importance, the chances are greatly on the side of bad composition being even more mischievous than bad speaking.

Excepting when used by well practised and tasteful writers, long sentences are almost invariably bad sentences. Member is added to member, until the writer becomes confused; and the instant that he has thus lost sight of the sense of his own words he is pretty sure to put it utterly beyond the power of his readers to find it. Short sentences, therefore, we would very particularly recommend to our readers as a great end to clear writing.

* In this dissuasion we are countenanced by the practice of many modern authors of great ability, and by the impressive precepts of one of the greatest of them—the late S. T. Coleridge.

As anciently as the time of Horace the use of hard words, which that writer in his Art of Poetry calls *sesqui pedalia verba*, was affected by inexperienced or unskilful writers. And the unnecessary use of such words is to be avoided even when writing for the press; but in business communications they more especially ought not to be employed, as they are almost certain to be misunderstood by persons of merely ordinary scholastic attainments. The short words which are commonly used in speaking, and which are for the most part derived from that simple and beautiful language, the Saxon, should, in the sort of writing to which in this brief paper we exclusively refer, be invariably preferred to words of foreign or classical etymology. With plain words and short sentences the young writer needs little to fear that he will be misunderstood, and to be understood, no matter what the subject of his letter may be, is after all the main object.

Many writers on grammar and style, (and among the number is the late Mr. Cobbett,) profess to dislike the use of abbreviations—such as &c., and they ask with an air of triumph—*why* use these? what is the use of writing &c. when the words “and the like” or “and so forth” are meant? Cobbett thus expresses himself upon the subject:—“Instead of the word *and*, you often see people put &, for what reason I should like to know. But to this & is sometimes added *c*: *and* is in Latin *et*, and *c* is the first letter of the Latin word *cætera*, which means ‘the like’ or ‘so on’; therefore this &c. means ‘and the like,’ or ‘and so on.’ If you mean to say, ‘and the like,’ or, ‘and so on,’ or, ‘and so forth,’ why not say it?”

With all due deference to Mr. Cobbett, and those who coincide with his funny theory, it could not be very easy for a gentleman addicted to book-making to write more complete nonsense than is contained in the very triumphant and hypercritical passage we have just quoted. Let us consider the matter; and briefly as we shall do so, we shall be able to show our readers that the dogmatical style may not impossibly be combined with utter erroneousness of reasoning.

When Mr. Cobbett, and those who agree with him, ask us why not write *and* instead of &, they substantially, though not in terms, demand why we should not wilfully waste time. They know as well as we that the sign is more speedily written than the word, and when they object to our using the quickly written sign of *and*, which speaks to the mind just as well as the word itself, instead of the less quickly and more laboriously written triad of letters, they ought for consistency sake to censure *short hand* as a barbarous substitute for writing at length, and the latter as a very objectional innovation upon the pristine practice of hieroglyphical representation! But the junction of the *c* to the & is a still farther offence! We again reply that &c. is more quickly written than “and so on,” or, “and so forth;” and if we might venture to take so great a liberty with the implicit copyists of Mr. Cobbett’s wrong-headed dogmata, we would respectfully suggest that the Latin word *cætera* means neither “so on” nor “so forth,” but simply “*others*.” In writing &c. we say “and others;” and in thus saying, we by the brief act of writing &c. save ourselves the trouble of writing and our readers the trouble of reading, “and others, of which it is not necessary for us to make any detailed mention;” and surely such a saving of time and labour is not to be censured! Those, and they are the majority of mankind, who have no occasion for any other than epistolary composition, need little or no advice beyond what we have given above. Of the essentials of the higher kinds of writing we will take an opportunity to speak at some length in a future number.

ON THE RELIGION OF THE HINDOOS.

(Concluded from page 174.)

THOUGH upon very numerous points the Hindoos are in a most pitiable state of superstitious ignorance, they have one good quality in which it were to be wished that all mankind would endeavour to imitate them. The quality to which we allude is their tolerance: though they are most strongly attached to their own faith, they hold all other faiths in the most perfect respect, believing that all religions virtuously followed are good. And as on the one hand they forbear from persecution, so on the other hand they equally forbear from all attempts at proselytizing; in fact, we believe there is not a single instance on record of a foreigner being even *allowed* to embrace the religion of Brahma. Upon this subject the universal opinion of the Hindoos is well and briefly expressed in a letter of one of their princes, who says,—“To degrade the religion and customs of another is to thwart the will and power of the Almighty, in whose sight all men are equal.”

Like most other superstitious people, the Hindoos have implicit faith in the predictions of pretended sorcerers; and they also place great reliance in the efficiency of amulets and charms, which they wear fastened round the arms, necks, and waists. To reason with them upon the egregious folly of putting any faith in such powerless trumpery is a mere waste of time—nay, the attempt to rouse their reason has no other effect than that of exciting their pity towards yourself, they as firmly believing in your ignorance as you possibly can in theirs.

Their *Genii Locorum* are as various and as numerous as those of old Greece; every important lake, mountain, and forest, having its *genii*, who are for the most part remarkable for malignity. In this particular it is most probable that the difference between the Hindoos and the Greeks arises from the former having their climate infested with malignant and venomous reptiles, the early injuries inflicted by which have most probably been attributed to the supposed *genii*.

Another of the obstinate superstitions of the Hindoos, is their belief in *lucky* and *unlucky* days. This belief is carefully fostered by the Brahmins, to whom it is as great a source of profit as it is of vexation and loss of time to the simple laity; for before the latter will venture to commence a journey or any other important enterprize they must fee and consult the Brahmins. If those solemn impostors affirm that the day proposed for the commencement of the particular business is a *lucky* one, the fiercest tempest will not prevent the deluded Hindoo from departing at the very hour named by the Brahmins; while, on the other hand, no degree of risk and anxiety would induce him to stir in the matter at a time which the Brahminical oracle has pronounced to be *unlucky*. At first sight our young readers may suppose that this superstition is a merely foolish one; but it is, in fact, not merely foolish, it is also productive of vast injury and loss. In order to keep up their credit with their dupes, the Brahmins are obliged to pronounce the *unlucky* sentence of pretty nearly half the days in the year; the consequence is that the Hindoos are taught by their superstition to become even more indolent and vacillating than their enervating climate would induce them to be; and to this single cause may no doubt be traced the great majority of the social evils which afflict a people who are by nature among the most ingenious of mankind.

Another most injurious waste of time arises from the frequency and length of the Hindoo fasts, which are held to be most important and indispensable rites of their religion. The whole of the month of December, for instance, is a fast

time universally, while to make the matter still worse each individual keeps private fasts in addition to those which are publicly enjoined and enforced by the Brahminical authority.

Among the numerous ceremonies enjoined by the Hindoo religion, that of ablution is undoubtedly one of the most useful. The Hindoos, indeed, in their ignorance, believe that ablution of the body has the effect of purifying the soul; but there is little doubt that the founder of the Brahminical creed inculcated this ridiculous notion only the more certainly and effectually to ensure that frequent ablution which, in the burning climate of Hindoostan, is so essential to cleanliness, and ultimately to health and longevity.

In our former paper we named and explained the Hindoo doctrine, called the metempsychosis; that namely of the souls of men and brutes being of like nature, and being also equally eternal, the diversity arising wholly from the difference between the bodies they inhabit. Accordingly the souls of wicked men pass successively through the bodies of animals more or less base, in proportion to the guilt of the soul while tenanted its human body, and it is only after this expiation that it can again appear in our nature. Believing that all animals are the depositaries of souls of deceased men, they have an absolute horror and loathing of animal food. None but the *Pariahs*, who are the mere scum and outcasts of the Hindoos, will eat any thing in the shape of animal food; and the more pious and respectable Hindoos would not crush even the most loathsome insect lest he should be injuring some deceased relation!

Mankind are rarely, if ever, consistent in their follies; the Hindoos, who reject animal food lest they should devour some portion of the body containing a deceased fellow-creature's soul, have no scruple of conscience about feeding heartily upon vegetables; and yet their doctrine of metempsychosis, if pushed to the full extent, ought to make them shudder to do that too, inasmuch as souls are said to pass into plants as well as into animals. Moreover, even were that not the case, there must be some fine casuistry of conscience about the men who would not crush a single insect, and yet cook and eat vegetables and drink water which contains them by whole myriads! However, if it have no other advantage, and there is little reason to doubt that in such a climate the mere abstinence from animal food is an advantage, the doctrine of the metempsychosis has the effect of making the Hindoos singularly benevolent, not merely to such animals as are domesticated, but to every visible thing that has life.

Of the remarkable Hindoo sect, the Buddhists, we shall give some account in a separate article.

CASTLE BUILDING;

OR, THE PLEASURES OF IMAGINATION.

THERE is infinitely more justice than the young are generally disposed to admit, in the dislike which many able writers have expressed of allowing youth to have a too free access to works of fiction. Doubtless there are many "Pleasures of Imagination," and they are among the purest and best of all our pleasures; but too great an indulgence of this propensity invariably tends to weaken the more important power of judgment; the mind becomes too enervated to be capable of stern and vigorous grappling with subjects that demand deep and continuous investigation.

The power of too great an indulgence of the imagination to weaken the judgment is very strikingly shown in the imprudent, not to say immoral, life which has been led by many of the poets. Their biographers have done them not

a little injustice in omitting to lay sufficient stress upon this fact; for, unaware of the weakening influence to which their minds have been subjected, people are too apt to suppose that these poets were deliberately wicked, when, in point of fact, they were merely weak in judgment.

If our whole life were a mere affair of holiday-making, the exclusive, or nearly exclusive cultivation of the imaginative power would be, perhaps, as wise a course as could be adopted by men wishing to live at once delightfully and innocently; but we have many duties to perform, even if circumstances exempt us from the general lot of being compelled to labour for our daily bread; and from the mightiest monarch to the poorest hind, every one has occasion to exert a vigorous and prompt judgment, if he would perform his duty either to society, or to himself and his immediate dependants. Now, if we do not give fair play to our judgment, if we put it in abeyance by an undue preference of imagination, we are perpetually in danger of injuring all whose interests are in any degree committed to our guardianship. Even this single consideration would of itself suffice to render it necessary to be very chary of indulging in the perusal of works of fiction; but there is still another reason. Living as we do in a "working-day" world, in which the vast majority of us have but too difficult a task to obtain due employment and remuneration, it is very unjust to ourselves to pamper our imaginations with high-coloured pictures, such as nearly all works of fiction abound with, of excellence and delight, but which, in our weary and difficult pilgrimage through the actual world, it is impossible, utterly impossible, that we shall ever be able to realize. For in this intoxicating and delusive indulgence we not only unfit ourselves for our highest, and most imperative duties, but we also render ourselves terribly sensitive to imaginary evils. Having set up an ideal standard of excellence, which as we have already remarked has no actual existence, we find annoyance and disgust in a thousand circumstances to which more happily constituted or more sternly educated men are wholly and fortunately insensible. On every side we find room for disgust and complaint; and thus having commenced by thinking our fellows infinitely better than they are, we gradually progress to a gloomy dissatisfaction and misanthropy; and after having cheated ourselves with imagined goodness, we wrong our fellow-creatures by the imputation of equally imaginary evil. Nor is it even here that the ill effect of too much imagination has its limit: tired with the everlasting disappointment of the silly hopes and anticipations we have indulged in, we at length build up to ourselves a new world within ourselves, and commence that idle dreaming which is so appropriately named "building castles in the air." Woe to our prospects of eminence or profit when we commence this very absurd practice! Every thing that tends to withdraw us from our waking dreams becomes absolutely hateful to us; we live in the cloudy world of our own minds, and while we are thus dreaming of crowns, sceptres, principalities, and powers, our wiser competitors are steadily exerting their common sense and industry, and winning to themselves the means of happiness and ease in that season of life, which for us can have only poverty, suffering, and contempt.

We are far from intending to undervalue the legitimate uses of works of fiction; contrariwise we are quite aware that some of the finest intellects of our time and country have been engaged in their production, and that some of the most laborious and astute statesmen have found in works of this nature their most favoured and refreshing recreation after the overtaking of both mind and body in sterner and more wearing, as well as more important studies.

But we would strongly urge both upon youth and their friends the propriety of wholly interdicting the perusal of all works of fiction until the judgment has become so matured and disciplined that there is no danger of the reader confounding the mere pictures of the fiction with the harsh and inevitable realities of actual life; nay, the more graphic and excellent the fiction the more sternly would we exclude it from the juvenile library; for the young mind too readily seizes upon the alluring without inquiring into the other side of the picture; and we dare aver that the life-like tale* of Defoe has caused many a lad to become an indifferent and unhappy sailor who would have made a very unexceptionable shopman or mechanic.

THE ELEPHANT.

(Concluded from page 159.)

THOSE who have lived in the East tell many striking tales of the marvellous sagacity and docility of the trained elephant. Thus in the *Library of Entertaining Knowledge*, a lady relates, that "when she was staying in a house near the fort of Travancore, she was astonished one morning, at observing an elephant, quite unattended, walk into the court yard, carrying with his trunk an apparently very heavy box. He deposited this, and shortly afterwards returned with a similar box; and this operation he continued until he had deposited a very large pile of boxes, arranged in the most exact order, no one in any wise directing or controlling him, after he had commenced his work, in obedience to the first command of his driver!"

Another singular instance of the elephant's docility is related in the same work. When the train of battering artillery was on its way to the but too celebrated siege of Seringapatam, an artilleryman who was seated on the tumbril of one of the guns, accidentally fell off. The hinder wheel was on the very point of crushing the soldier, when an elephant spontaneously seized the wheel with his trunk, and kept it suspended, until the gun was beyond the possibility of doing the man any injury.

The elephant is also capable of showing a very high degree of affection, combined with its wonderful sagacity. Bruce, the well-known traveller, relates that he was present at an elephant hunt, when a female and her calf were attacked. The latter was allowed to escape, but on its mother being wounded, made its appearance, and gallantly defended its parent, seeming quite reckless of its own pain and peril. Bruce very truly remarks—"Here is an example of a beast, and a very young one too, possessing abstract sentiments, to a very high degree." By its flight on the first appearance of the hunters, it is plain, that it was conscious of its own danger; it also reflected upon the danger of its mother, which was the cause of its returning to her assistance.

The trunk being the most important organ of the elephant, he is always very anxious about preserving it from injury. When encountering the lion or tiger, he carefully rolls up his trunk, and defends himself only with his tusks; and in the case of an elephant which was burned to death in Dublin, some time ago, it was found that the poor animal had been so anxious to preserve its trunk from the devouring element, that he had actually thrust it to the depth of two feet in the hard ground of his place of confinement.

The chief value of the elephant is, as our readers of course are aware, in his tusks, which are ivory; and it is said that the demand for this beautiful article in England alone causes not fewer than three thousand elephants to be killed every year.

In Asia, the elephant is found as far as thirty degrees north latitude; in Africa he is found only south of the Great Desert, though formerly he was found in all parts of that continent. The African elephant, however, is generally superior in size to the elephant of Asia.

ABSENCE OF MIND.

A HABIT of inattention to what we are apparently engaged in, or to matters that occur immediately within our scope of observation, is a certain characteristic of a weak and trifling mind, and places its possessor in constant danger of committing some extraordinary absurdity, which will, at least, expose him to the ridicule of others, if it does not entail upon him serious misfortune. We remember an acquaintance of ours making himself the laughing-stock of his servants, by returning home one day with a gold-lace band round the hat he wore—he had been calling upon a friend, on his road home, and had unconsciously taken the footman's hat from off the hall table, instead of his own. The same person nearly lost his life, in consequence of his absent-mindedness, by walking deliberately out of his house at Islington, which faced the New River, and, instead of turning to the right, obliviously going straight forward, and stepping into the water. Fortunately, he was dragged out in time by a neighbour who witnessed the occurrence, otherwise, being somewhat of a corpulent habit, and no swimmer, he would inevitably have lost his life, and a coroner's jury would have graced, or rather disgraced his memory, by a verdict of self-destruction, "being at the time in a fit of insanity."

Luckily, this gentleman was not dependent on any mercantile or other employment for pecuniary support, otherwise it is by no means improbable that he would have cost his employers a few hundreds, by lighting his candle with a bank note, or bill of exchange, if, indeed, he chanced to omit the casualty of thrusting a bundle of bank notes into the grate, in order to revive the expiring embers.

We pledge our veracity for the correctness of the foregoing anecdotes, however exaggerated they may appear; and we ask our readers whether there can be a stronger proof of mental weakness, than in the display of such gross absurdities? The fact is, that persons of absent minds either have not the power of retaining two ideas at once, or they are in such a dreamy state of existence, that it almost amounts to actual idiocy. They often do not know even their oldest acquaintance; their answers are exactly the reverse of what they ought to be; for, if you speak to them upon one subject, it is most likely they will reply as if you were talking upon another,—they forget what they said last, and never join in conversation except by fits and starts, as if they had awoke from a dream; and by these absurdities are continually guilty of treating others with extreme rudeness, and making themselves the objects of ridicule in every company they happen to mix with. Surely, if there are any useless people in society, these are the most so, for they never can tell you even what was said or done in their presence, and much less are they able to fix their minds upon the study of any subject, from which themselves or others might derive and disseminate useful or amusing information. If they make the attempt, their ideas are frivolous, crude, and undigested, fit only to amuse the young and lead them

* Robinson Crusoe.

into the grossest errors. Such men are worse than blanks in society; but we thank God that the spirit of emulation which has been aroused in the rising generation by the progress of knowledge, bids fair to exterminate the few remaining specimens of those idle and ridiculous dreamers.

It is true that men of genius and talent have been conspicuous for possessing this glaring absurdity, and the intenseness of thought with which they were commonly wrapped up in the investigation of some important inquiry may perhaps be pleaded with some show of justice, as an apology for their absence of mind; but really, even with such men as Sir Isaac Newton and Mr. Locke, it could not have been considered as any other than a blemish in their social character, and certainly must have made them extremely disagreeable companions. It is related of one of them, that, having invited a friend of a somewhat keen appetite to dinner, he kept him waiting so long at the table after the repast was served up, that the hungry gentleman, finding messages utterly useless, at last incontinently set to and demolished nearly all that was on the board before the philosopher made his appearance; and that when the latter entered the room, and saw the havoc which had been made, he apologized to his friend for forgetting that *they* had dined, and politely joined him in emptying the decanters. Whether this apology was genuine, or intended to be sarcastic, we do not pretend to say, but we certainly think that the incontinent gentleman was perfectly justified in satisfying his hunger when he found that his repeated messages were received with such rude neglect. The philosopher should have remembered that "there is a time for every thing," and have abandoned his studies when he knew that his guest had a claim upon his attentions.

The sole cause of absence of mind is a want of proper discipline, exertion, and business-like direction of the mental powers,—choosing a fit time for certain occupations and amusements—keeping our thoughts fixed upon that which we are at the time engaged in, and abstracting them entirely from every other object. This may seem to some a difficult task at first, but habit will gradually render it perfectly easy, and the time will be found to have been passed, not only more pleasantly, but also to more substantial and permanent advantage. There is something to be learnt, by young men in particular, every where, and at every moment of their lives—at home, abroad, in the lecture room, the theatre, or the ball-room; let them attend to all that passes, let them study the characters of the company they are in, and attend to the subjects of their conversation; let them listen to every thing that is said, see every thing that is done, *and think of it*; for they may rest assured that oftentimes the knowledge which they will thus gain will prove of much more value to them, in their intercourse with the world, than any information which books can bestow. What else, indeed, have they to do on these occasions, but to attend to what is said or done in their presence, for the purpose of gaining knowledge of some kind? Amusement, perhaps, will be the answer. True—and what higher or more profitable amusement can you have, during the intervals of the one which has led you into company, than studying the manners, habits, and subjects of conversation of those around you? We confidently tell you—none.

The above remarks are intended particularly to expose the folly and absurdity of inattention, or absent-mindedness in all matters of personal conduct, as they more especially affect the individual himself in the common every-day intercourse which exists between him and his fellow-creatures; but, in the smaller circles of society, where we are either personally known to every one present, or are unavoidably brought into acquaintance with them, for even only a few

hours, it is our duty, an imperative social duty, exclusively to devote our attention and talents to every thing which is said or done, in order that we may, if possible, contribute our quota, either in word or deed, to the sociality and enjoyment of all who are present. Absence of mind, under such circumstances, is perfectly unpardonable, because it implies a declaration that those we are in company with are unworthy of our attention, and that we have no desire to please or be pleased by them,—an inference which they must necessarily draw from our conduct, and than which nothing can hardly be more affronting. We therefore earnestly entreat our youthful readers, if they have reason to suppose the company they are invited into will prove uncongenial to their tastes, rather to decline the invitation, than accept it and show the least dislike to those who are present. Having once joined them, it is our duty to appear pleased; and we ought to do all we can to please them, as if we were really enjoying their society. Even supposing their conversation to be trifling, we have no right to hurt their feelings by showing our consciousness of the fact; but, as a matter both of good feeling and policy, it is best to fall in with their weakness, however painful it may be to do so. By this means many young persons have made sincere friends of really kind-hearted and amiable people, whose valuable good qualities were more than atonement for their mental deficiencies; and who, at some time or other, proved of most material service to their protégés in matters of worldly moment. At all events, our young friends may rest assured that they will never make their way handsomely through the world, if they once give themselves up to a habit of absent-mindedness, which is only to be checked by proper discipline and exertion, so as to keep their mental powers in full vigour, and enable them to fix their attention abstractedly upon any one given object, either of notice or inquiry.

SKETCH OF THE ATTEMPTS AT FINDING A NORTH-WEST PASSAGE TO INDIA.

(Continued from p. 173.)

WHEN Captain Parry set out on his second voyage, another expedition was dispatched under the command of Captain Franklin, to coast along the northern shores of America. Captain Franklin accordingly wintered on the northern lakes of America, and early in the following spring passed down the Coppermine river to the Arctic ocean, which bounds North America. His enterprise, however, may be very briefly described as an utter failure in every respect, except as proving his own great skill and spirit, and the indomitable hardihood of English naval officers and seamen. The difficulties he encountered, and the sufferings he endured ere he resigned all hope of fulfilling the whole of his intentions, were terrible. In one part of his narrative the gallant captain says: "As the afternoon wore away, gloomy clouds gathered in the north-west, and at six a violent squall came from that quarter, attended with snow and sleet. The gale increased with rapidity; in less than ten minutes the sea was white with foam, and such waves were raised as I had never before been exposed to in a boat. The spray and sea broke over us incessantly, and it was with difficulty that we could keep free by bailing. Our little vessels went through the water with great velocity under a close-reefed sail, twisted about three feet up the mainmast, and proved themselves to be very buoyant. Their small size, however, and the nature of their construction, necessarily adapted for the navigation

of shallow rivers, unfitting them for withstanding the sea then running, we were in imminent danger of foundering. I therefore resolved on making the shore, as the only means of saving the party, although I was aware that in so doing I incurred the hazard of staving the boats, there being few places on this part of the coast where there was sufficient beach under the broken cliffs. The wind blowing along the land, we could not venture on exposing the boats' sides to the sea by hauling directly in; but edging away with the wind in that quarter, we most providentially took the ground in a favourable spot. The boats were instantly filled with the surf, but they were unloaded and dragged up without having sustained any material damage. Impressed with a sense of gratitude for the signal deliverance we had experienced on this and many other occasions, we assembled in the evening to offer up praise and thanksgiving to the Almighty."

A new expedition was now determined on, which, under the command of Captain Parry, was to make direct for the North Pole, sailing as far as he could possibly penetrate; and then proceeding with a few picked men, remarkable for their hardihood, on foot, carrying with them two sledge boats so constructed as to be fit to sail on water, and yet sufficiently light to be dragged over the ice. Early in the year Captain

Parry sailed from England in the Hecla, and in June, he brought his vessel to anchor in a bay on the northern coast of Spitzbergen, and set out with his two boats upon, his daring excursion.

In order to avoid the painful disorder of the eyes called "snow-blindness," which is caused by the glare of the snow during the sun's action upon it, Captain Parry determined upon travelling by night, and halting for rest and refreshment by day. This plan also gave them the advantage of travelling while the snow was more solid under their feet than it otherwise would have been; an advantage which entirely outweighed the somewhat frequent fogs they had to encounter, as well as the amusing perplexity of the men, who gravely declared that this sort of travelling prevented them from knowing night from day!

On rising in the morning the party took off their fur sleeping dresses, and put on their travelling attire, even to the boots and stockings, still wet from the previous day's exposure. Putting these on, indeed, was merely a matter of the first unpleasantness, for even dry boots and stockings were sure to get thoroughly soaked in the first ten minutes of their travelling, while, on the other hand, it was of surpassing importance to preserve completely dry clothes for sleeping in.

(To be continued.)



COLCHESTER CASTLE.

THE city of Colchester was an important and wealthy place in very ancient times. Tacitus, who calls it Colonia, makes very frequent mention of it as the scene of important events during the stay of the Romans in Britain; and innumerable remains of Roman buildings are from time to time discovered by people digging in the vicinity of the city.

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Roman coins, also, have been found here in great number; and there is no doubt that it was a place of great resort with the Romans, who, in compliance with their usual policy, no doubt, fortified it with walls and a moat, of which former, indeed, fragments are perpetually being unearthed. Helena, the wife of Constantius, and mother of the Emperor

Constantine, was a native of this town, and was married to Constantius while he resided here as præ-consul of Britain.

When the Romans finally withdrew from Britain, Colchester still continued to be a place of great strength and importance until the ravaging Danes had subdued the neighbouring country, when they attacked Colchester, and very nearly razed it to the ground. When, or by whom, Colchester was restored, we have no account; but that it was before the invasion under William the Conqueror, is quite evident, as on that occasion the castle was bestowed upon a gallant follower of William's, named Eudo Dapifer. By this powerful and wealthy baron, a mitred abbey was founded for Benedictine monks: its abbot sitting as a lord in parliament, and its affairs being exempted from episcopal interference. This wealthy establishment continued in its prosperity until the reign of Henry VIII. when the visitors appointed by that king to inquire into monastic affairs being resisted by John Beach, the abbot, he was tried, condemned, and executed for high treason; only one instance of very many of the arbitrary and sanguinary manner in which king Henry was wont to resent any resistance to his sovereign will and pleasure.

The castle of Colchester will be ever memorable in history for its gallant defence, on behalf of King Charles I. during the civil war. The parliamentary forces in the first instance

besieged the castle, and several times endeavoured to carry it by storm; but their fiercest efforts were baffled by the steady and sustained valour of the defenders; they at length turned the siege into a blockade, and deliberately set themselves down to starve this important place into submission. Even the prospect of starvation could not induce the gallant garrison to surrender, until they had been reduced to the most horrible state of suffering, even the wealthiest among the besieged being obliged to feed upon cats and dogs. Devoted as the besieged were to their king, their condition at length became so hopeless that farther resistance would have partaken less of warlike courage than of positively suicidal insanity, and it was consequently resolved that this stronghold of loyalty should at last be surrendered to the puritanical and sanguinary foe. That foe proved his title to the epithet of sanguinary by as base an act of murder as ever was committed by wretches disgracing the name of soldiers. Sir George Lisle and Sir Charles Lucas, the two gallant officers who had so nobly commanded the besieged, instead of being admired for their gallantry—as by a noble foe they would have been—were tried by a so-called court-martial, and, contrary alike to the laws of war and the articles of the surrender, savagely shot to death beneath the walls of the city.

Of this ancient and venerable edifice our readers have an accurate view in the accompanying engraving.

NOTES ON PERSIA.—No. 1.

The oriental name of this beautiful and fertile country is *Iran*; it is an extremely ancient monarchy, and, from its position with respect to Russia and our eastern possessions, one in which it is impossible for England not to take a very strong interest. It is not, however, in a political point of view that we design to speak of Persia; but contrariwise, merely to describe some of the peculiarities of its customs, laws, &c.

The king, or in the language of the country, the Shah or Padishah, of Persia, is an absolute monarch; in other words, he has despotic power, unless some daring and unprincipled person shall think fit to aim at his authority and deprive him of his life; and this kind of limitation of absolutism has been quite frequently enough put into force in Persia to render every succeeding Persian monarch alive to the possibility of both his tyranny and his life being abruptly and effectually terminated. And on this account the king of Persia, like his fellow sovereign the Sultan of Turkey, is extremely jealous not only of his ministers and courtiers, but also of the princes of the blood royal. These latter, indeed, are entrusted with considerable appanages in the way of vicegerencies; but their conduct is carefully espied upon by the viziers, who are nominally appointed to aid them in the labours of government, but who, in reality, are bound to watch them with the utmost vigilance, and to report upon their conduct, and even their conversation, to the Shah himself. This is one illustration of the evil that arises from a despotic form of government. Such a government cannot possibly subsist without the aid of espionage, and the very occupation of a spy is so debasing that he must be espied upon by others, and thus the whole community becomes so distrustful, each believing the other to have both the will and the power to injure him, that the despot finds his safety and power in the alarms and dissensions of the whole of his people.

We who live in such perfect freedom, and under the

administration of laws which know no distinction between the king and his humblest subjects, can scarcely be made adequately to understand the terrors, the almost idolatrous awe, which the subjects of despotic governments feel for their rulers.*

A striking proof of the servile awe which the people of Persia feel of their shah is given whenever the inmates of his harem have occasion to travel. Five or six hours before they are to commence their journey, public notice is given of the route they are to pursue, and all men are warned to retire so far from it as to be unable to see the cavalcade; and if it is to pass through a village, the inhabitants are even compelled to leave their habitations, on pain of the severest punishment.

A body of out-riders, mounted on fleet horses, precedes the horses and litters on which the fair inmates of the harem are borne. These out-riders shout at the top of their voices, *Coorook!* which signifies *Beware!* or *It is prohibited!* Soon after these horsemen come up a body of mounted eunuchs, armed with very heavy sticks, with which they bestow the most murderous blows upon any unhappy person who may have been unlucky or imprudent enough to disregard the *Coorook!* of the out-riders. No excuse will avail, and the luckless wretch, bruised and battered from head to foot, may esteem himself fortunate, if his tormentors allow him to drag himself from their path even in that miserable condition.

That exceedingly able writer, Mr. Morier, who was for a long time resident in Persia, gives an account of an instance

* A case occurs to our memory in which the king of England, George III: unwittingly infringed upon the premises of a tradesman, who sued his majesty and gained his cause! The tradesman was John Horne, a poulterer, and son of the afterwards celebrated John Horne Tooke.

of the severity with which they who disobey the arbitrary *Coorook*! are liable to be treated.

The ladies of Persia not unfrequently travel on horse-back, riding in the style of men, but very distinguished ladies more commonly travel in a kind of litter called a *takhtirevan*, which is borne on the backs of two camels. Lady Ousley, wife of Sir Gore Ousley, the English ambassador to the court of Persia, was one day taking an airing in her litter when a Persian servant of the mehmandar to the embassy imprudently ventured near the litter. The mehmandar struck the unfortunate fellow violently with his sword, and then ordered his attendants to fall upon him *en masse*, and he was accordingly knocked down and beaten, and kicked with the most ferocious and unsparing severity.

The *Coorook* applies to every male above the age of seven years, and it is productive of inconvenience and suffering such as could not for a single week be inflicted in a free country without a repeal of so absurd a regulation, or the utter ruin of the government that should venture to uphold it.

INTOXICATION,

THE BANE OF ALL IMPROVEMENT AND ADVANCEMENT.

OUR readers, we rejoice to believe, will bear us witness that we are hopeful of our kind, as well as truly desirous for their welfare. On every side we see cause to hope and to anticipate that "better times are coming;" times, when the moral and the intellectual will keep the merely animal in subjection, and when men will be happier because wiser, and more prosperous because more virtuous. But though we are thus hopeful,—though we are thus alive to all that promises good to humanity,—we are not blind to the difficulties which lie in the way of the forward march of the intellect, the morality, and the happiness of mankind.

But is it because there are obstacles in the way that we are not to strive to advance? Surely not. Our duty is to adopt the good old Scottish proverb,—“Ready, aye ready!” to admit the existence and the power of all the obstacles which oppose us, but to be sternly resolved to encounter them in that spirit which must prove sooner or later successful.

Chief among the various circumstances which retard the march of improvement, is the all but infernal prevalence of that most destructive of habits—the habit of intoxication. Unhappily it is—let us neither question nor blink the fact—but too commonly indulged in, and that too by precisely the kind of people whose pecuniary means are least calculated to allow them to practise it, without dreadful injury to both themselves and the helpless persons who are unhappy enough to depend upon them for support and protection. But the very fact that there *is* such an enemy to the onward march of mankind; the very fact, that there *are* all sorts of seductions placed in the way of the unreasoning poor, by people who are so vile as to think no means too bad by which to gain the end of their own and their families' aggrandizement;—these very facts are, in themselves, sufficient reason why those who love intellect, and abhor as well as dread vice, should “up and be doing.”

That the legislature both ought to interfere and will interfere in this matter, we have no doubt; but we, as our readers well know, are precluded from entering into any details upon this part of the subject. But our wishes and our hopes,—nay, our duty too,—demand that we shall lose no legal opportunity of doing what *is* in our power towards

abating the moral pestilence which stalks through the land.

Thank heaven! if there are many venal and heartless people who are willing to destroy the bodies, ruin the fortunes, brutalize the minds, and peril the souls of their fellow-creatures for the sake of pecuniary gain to themselves; so, on the other hand, there are able, right-minded, and disinterested men, who think no sacrifice of time, labour, or money, too great to aid in putting down vice, and aiding the cause of virtue and wisdom. By one excellent person of this latter kind we have been favoured with a copy of a pamphlet, which redounds to the credit equally of his head and heart, and which we point to the attention of the public, not by way of doing a favour to the author, but by that of conferring a real and great benefit on the public. Written throughout in eloquent and argumentative style, this pamphlet has the additional merit of not merely and vaguely censuring the evil, but of suggesting a remedy. From this part of the work we take the following passage; and we, at the same time, very earnestly recommend to our readers to consult the work itself, and to make it known to all persons with whom they are acquainted.*

“How I wish that I could prevail on some of you to make a personal inspection of these hourly increasing horrors, which hurry human beings in countless masses to their untimely graves; for you can have no idea of the wholesale misery and ruin dealt out to thousands of your fellow-creatures.

“You would then see the blanched cheeks and the pallid brow, the deadly eye and the ghastly countenance, that momentarily come in contact in these nurseries to crime, and these stepping-stones to transportation; you would contemplate with fearful verity the degrading spectacle, and be convinced of the moral obligation you owe mankind to put down these hundred-headed monsters, which rear their carcases in liveries of dazzling and appalling splendour, as if in mockery of the rags they house.

“My Lords and Gentlemen, it is not perhaps for an unknown voice to suggest a remedy to those whose peculiar and particular province it becomes to legislate for their fellow-subjects; but conceived, as is the proposition, in the most profound profession of respect, it is thrown out for your best consideration, whether the sale might not be altogether prevented in small quantities, and be prohibited from being consumed at all on the premises. Among those in society who had reason and moderation to temper their inclination, the revenue would not suffer; and those whose time and attendance is sacrificed at present in procuring it by stealth away from their families, it is apprehended the demand would materially diminish. Another mode suggests itself for your attention,—whether it would not be of easy practice, with the most beneficial results, to put a heavier license on, as a necessary check to the sale of the present small medicums, and proportionably reduce the duty in the sale of larger quantities; by this means, an effectual remedy would result, by throwing overboard the smuggling argument, while the sale of such small quantities under a proportionate drawback in the price paid for the license, and the reduced cost of the larger quantum, would both conduce to the abolition of private stills.

“A yet greater field for improvement would be opened by the removal of the duty on coffees and teas, and turning the demand for drink to those at least sober establishments,

* “Gin! the Skeleton, Spirit, and Demon of Depravity,” by the Author of the “Golden Rules of Life,” &c. &c.

reading-rooms and coffee-shops, to which it is pleasant to turn, and scan the scale of intellect and thirsting knowledge which manifests itself at the one, and the appalling degree of idiotcy reeking in the other, where the spirit of gin takes precedence of, and fearfully contrasts itself with the spirit of literature distinguishable at the former.

"As, my Lords and Gentlemen, you are aware other questions are oftentimes conceived from partial views and limited ideas; but the present subject is wholly free from party trammels. Not one among you is there who could not handle it with credit to his own order, and meet with an honourable support from that portion of the Two Houses, which, on other matters, might as honourably hold themselves ready to become their avowed opponents. When you are told herein, that which can be verified before a committee of your members, that on the morning of the Sabbath, a guinea a minute is an average of the receipts at one establishment alone, you will, perhaps, think it fitting matter for immediate investigation before such a tribunal, and acquit of any and every intention to play the saint, the humble aspirant who has laboured herein briefly, but earnestly, to raise up the spirit of one among you to bring forward the matter, in the hope of all ultimately uniting to stem the current of depravity, and thus entitle yourselves to another claim on the lasting gratitude of your country, for your praiseworthy and proper protection of the best and dearest interests of mankind.

"You can have no idea of the growing feelings which pervade the respectable portion of the community—of the paramount necessity there prevails for an immediate investigation of the evils which arise from the continuance of the impunity.

"The members of both your Legislative Assemblies are accustomed to judge of the pressure from without, more by the number of petitions placed upon your tables, than any other

indication; but it must not be expected in a commercial empire like our own, that pounds, shillings, and pence, will yield to a sense of the necessity for moral improvement; and therefore it is, that the silence which reigns at present is no assurance of apathy on the subject.

"Can it be that ye are ignorant of the cause of crime, and the dreadful deeds which tread upon the heels of drunkenness; or are ye callous to the better feelings of human nature? A thousand records of your well-spent labours rise up in judgment against so base a thought; and charity would fain suppose the former, but that the police reports daily go forth upon the wings of the metropolitan press to give the lie to such a plausible interpretation. For the sad effects of drunkenness, let the magistracy of England be appealed to, and you will find in their evidence food enough for reflection.

"Would ye desire to know some only of the immediate results which spring therefrom, pursue the method which alone can furnish them, and before a committee of your members, examine at length the coroners of the three kingdoms.

"The remoter results of this deadly sin may be arrived at by a conference with the governors and directors of our gaols and our prisons; our houses of correction; our Magdalens and our Penitentiaries; for they could throw a light upon the subject far too frightful to contemplate with contentment; and if aught after can possibly be wanting to confirm the pestilential curse, the hospitals may furnish it.

"Hearken to the evidence of our mad-house keepers, and the proprietors of private lunatic establishments. Confirm it by the frightful and fatal facts that could be furnished by the faculty alone; and many a deed of blood will stain your journals, of souls once comparatively free from sin, that have gone down to their graves unknown and unlamented."

No. III.—SELF-INSTRUCTOR IN MORALITY.

CHOICE OF COMPANY.

ONE of the most important duties which can be inculcated on young minds is, the choice of company, which should always consist of those who are their superiors, either in talent, birth, rank, or fashion, and who are the accredited good company of the place in which, for the time, they may be either visiting or residing. It certainly may happen, that persons possessing none of these qualifications will occasionally intrude themselves into good company, under the protection of some considerable personage; but, in general, no one either of mean rank or decidedly infamous character can gain admission there.

Fashionable good company is the only one in which the most refined manners and politest language can possibly be learnt; because there, and there alone, are to be found the individuals who have been taught these manners and language, and who pride themselves on making them their peculiar study.

It may be imagined that we have not always the power of gaining admission into good company, but we may rely upon it that no one who was really deserving of it, and who was in circumstances which enabled him to live and appear in the style of a gentleman, ever found the slightest difficulty. Having once gained a footing in the circle we desire to enter, knowledge, modesty, and good-breeding

will ingratiate us with all those whose acquaintance we may covet; but let us remember, that politeness is the principal quality on which we have to rely; and that, without it, our other qualifications, however inestimable they may be, will prove entirely unavailing. Without it, the scholar is no better than a pedant; nor indeed can any man, let him possess what merit he may, be considered in any other light than that of a mere clown.

We would by no means recommend our young friends to devote themselves too much to the society of men of learning; for although it is highly to be valued, as a means of improving the mind, there is, generally, nothing to be learnt from such persons on the score of manners; because they live, for the most part, out of the world, and cannot possibly have that easy manner and address, the importance of which we are so anxious to inculcate. An occasional intercourse with such company is certainly advisable, and in many respects advantageous, but it should by no means entirely engross our attention.

Of all others, the company which our young friends should most carefully avoid is that of those persons who are really *low* either in rank, parts, or manners;—their manners and meannesses are unconsciously caught, and they think it such an honour to be seen in company with their superiors, that

no folly or vice is too gross to form the subject of their flattery if they conceive that, by so noticing it, they can ensure you as their companion.

Young persons may imagine that the disgust excited by such company will, of itself, protect them from it; but when their vanity is artfully appealed to by making them the head of the company,—when they are applauded and admired as beings of a superior order,—and their pride is thus worked up to the highest possible pitch, the delight they experience becomes perfectly irresistible, and the disgust which was at first so strongly felt gradually diminishes, and often gives place to a friendly intimacy, which ends in the degradation and ruin of the unfortunate victims. Low company may be generally considered as vicious, for ignorance is here sure to be met with, and vice is its natural companion; but good company is generally exempt from this evil; and even if we do hear of such things as fashionable vices, we may rest assured that the unfortunate possessors are by no means so much respected or esteemed as they would be without them, which is a great deal more than can be said for the low company of which we have been speaking, where some particular vice itself often forms the subject of admiration or esteem among the individuals who compose it.

We earnestly, therefore, advise our young friends to shun low company as the first step to mental pollution. Let them copy the politeness and easy manners of well-bred people, remembering, if they should perchance discover any vices, to consider them only as blemishes, which it would be as ridiculous to imitate as it would be to deform our personal appearance because some very learned man was remarkable for the desired peculiarity.

ASSOCIATION OF IDEAS.

WITHOUT going more deeply into metaphysical inquiries than is requisite, we may obtain both improvement and delight by turning our attention, from time to time, to the nature of the operations of our minds; and these it is in the power of every one, however humble as to social circumstances, to examine carefully, and at his leisure. And independent of all other recommendations of this sort of study, it is very desirable as a counterbalance to the exclusively utilitarian and bargain-driving tone which the employments and habits of a mercantile and highly-civilized country have so strong a tendency to give to our feelings; for though it is undoubtedly true that our duty to God, to society, to our dependants, and to ourselves, demands that we should steadily and completely “do our duty in that state of life unto which it has pleased God to call us,” yet there are to all of us times and seasons when our secular duties leave us free to perform the not less important duty of improving the intellect with which we are endowed, and which assuredly was not entrusted to us, that we might allow it to rust in slothfulness, or employ it in mere and profitless frivolities.

Among the most interesting, and at the same time, among the most obvious of the laws of mind, is that which metaphysical writers term “association of ideas;” that wonderful connexion among our thoughts, by means of which the (at first sight) seemingly most incongruous, respectively introduce and follow each other. If it happens that any one of our readers is so wholly unused to metaphysical study, as to have been until now incurious about the process by which he arrives at what seems, and only seems, instantaneous and merely accidental thought of any given character, he will find it no uninteresting or uninstructional employment suddenly

to arrest the course of his thoughts, and trace his ideas from the point at which he has thus stopped. He will almost invariably find that his thoughts have passed through a complete series of less and less precisely similars; and he will invariably find—if he trace his thoughts fairly through every link, and to the utmost extremity of the chain—that he has never accidentally fallen upon any given subject of meditation, but that all such subjects have been suggested by a chain, longer or shorter, of mental links, more or less closely connected.

But, in truth, few, if any of our readers can have failed at some time to have had their attention aroused to this most important law of mind. There is far more probability that no practical use has been made of the knowledge of it; though a very important practical use can be and should be made of that knowledge. For example, nearly all disputes upon mere matters of what is called taste arise from inattention to the fact, that pleasant associations may give beauty in the eyes of one person to what another person may deem, at the very best, a very homely and trumpery matter, while to a third party, the very same thing that is the cause of rapture to one person, and of mere contemptuous indifference to another, may, from some terrible associations, be the cause of mental horror so great, as even to terminate in bodily syncope.

A farther consideration of this subject will serve to show that the power of association in giving the tone to our thoughts, is by no means confined to mere matters of what is called taste. On the contrary, we shall frequently find, if we make the requisite investigation, that the opinions upon which we the most confidently and warmly dogmatise, have been taken up by us, not on their own intrinsic merits, but in blind and implicit obedience to the law of association; and after ascertaining this fact in a few seemingly dissimilar cases, we must be incurably ignorant, or insufferably tyrannous and insolent, if we do not acquire humility as to our own opinions, and tolerance as to the opinions of others; for who would venture to boast himself or censure another on account of a difference of opinion resulting simply from the adventitious circumstances in which two disputants have, at some former time, been placed?

The leading principles of mental association are termed *Similarity, Contrast, Cause and Effect*.

There seems to be no good reason to doubt that the most frequent as well as certain cause of an association of ideas is *similarity*, but some writers have, we think, gone too far when they affirm that even *contrast* is to be brought under this head. Thus, a clever American writer says, that the sight of a dwarf calls to our mind a giant whom we have formerly seen, and that the intense cold of a bitter winter's day calls up to our memory the sultry fervour of the hottest of the dog-days. So far we can perfectly agree with him; but when he goes on to add that the principle upon which our association of ideas depends in these cases, is *similarity*, and not *contrast*, we feel bound to withhold our assent from so startling a proposition. True it is, that the writer in question endeavours to make out his case; but he only does so by a mere play upon words; for answering the imaginary, but obviously very reasonable question, “How are tallness and shortness, and heat and cold similar?” he replies, “In the circumstance that they are *remarkable*,” a ground of similarity certainly, but one which ought to make the thought of either the one or the other creative of thoughts of all other remarkable things, if the principle of this association were what the writer to whom we have alluded imagines it to be. Every one who will take the trouble to analyse his own feelings, carefully, and continuously to watch

and ponder upon the operations of his own mind, will find that contrast is a separate and distinct, though ratlier less frequent principle of association of ideas, than similarity.

Another very powerful principle of such association is *cause and effect*. For instance, between an oak and an acorn there is no comparison as to size and appearance, and yet no one who has any acquaintance with the oak ever looks upon that stately tree without thinking of the insignificant little acorn, nor upon the latter without instantaneously associating it in his mind with the mighty monarch of the forest.

There is yet another principle of association of ideas, to which it is by no means easy to give at once a brief and fully descriptive name. Perhaps we may say that the principle can scarcely be better described than by the words *casual connexion*; for in order to this kind of association of ideas, neither similarity nor contrast is requisite, nor has it the slightest dependance upon cause and effect. For instance, between a plaything and a little child there is no sort of likeness—but ask any mother who has endured the misery of losing any of her children, and she will tell you that even when time had begun to shed its healing balm upon her bruised and suffering spirit, the accidental meeting with the paltriest article that had in former days belonged to her child has amply sufficed to call up all her sorrow afresh, to put the dead child visibly before her eyes, as he was ere the stroke of the spoiler Death descended upon him, and to make her feel once again that awful heart-heaviness which was inflicted upon her, as the dull weight of the descending clouds told her that he, her beloved one, had indeed returned, “earth to earth, ashes to ashes, and dust to dust.”

To this same principle it is, that we owe what we may term our arbitrary and artificial *mémoire*. Good might just as well mean bad, and port wine might as well mean verjuice, as otherwise. What connexion is there between the roundness and the sound of the letter *o*? Or between the crooked form of *s* and its serpent-like sound? In the latter case, the veriest tyro will surely at once see that in *century*, &c. the little letter *c* has precisely the same sound as *s*. But certain words have been shown to us in connexion with certain ideas, and by this arbitrary and fortuitous connexion they have become to us inseparable from each other, whence the exceeding difficulty of composing really idiomatically and rapidly in a foreign or dead language.

Thus far it may have appeared to our readers that though it is undoubtedly worth while to understand the laws of mind, yet there can surely be no great practical usefulness in an acquaintance with the laws of mental association. Certainly, if this were true, we should not occupy so much of the space of our readers upon the subject; but, in point of fact, there is very great and very important practical use to be made of this kind of knowledge. In many papers in this work, we have pointed out to the notice of our readers the vast influence of *habit* in the formation of character. We have by no means exaggerated that influence, and we are quite convinced that of all our habits, those which have the strongest influence upon us are our habits of association, of which we shall in a future paper give our readers as full and graphic an account as may consist with the requisite brevity.

NOTES ON THE NIGER.

SCARCELY any locality has caused so much or such permanent controversy as the river Niger in Africa. Several thousand miles in length, and traversing numerous countries of which so little is known, geographers and travellers, adventurous men of science and mere tarry-at-home scholars, have found in this celebrated river a subject equally excitative of curiosity and fertile in conjecture. Scarcely any two travellers have agreed in their account of its course, while its source has been a still more fruitful subject of error and of controversy; and the discoveries which have at length, and only recently, been made, are a complete feature in the literature of our time.

The first mention made of this great river, which waters so many rich lands, and has bid defiance to the researches of so many gifted and adventurous men, occurs in the African Geography of Herodotus. That ancient writer states that some Nasamonians, a people located in the northern parts of Africa, and on the border of the Mediterranean, travelled in a westerly course from Egypt, until they arrived at a great river, flowing towards the east, and full of crocodiles. He adds that these adventurous travellers were conducted by some of the natives to a great city situated on the banks of this great river. It is above two thousand three hundred years since the travellers thus spoken of were so conducted to a “great city,” and modern travellers are of opinion that the city of Timbuctoo, only so (comparatively speaking) recently known to modern travellers, was the city visited and written of at that very distant period. Both Herodotus and Pliny, as well as the eminent geographer Mela, imagined the river thus spoken of to be the Nile, but Ptolemy of Egypt distinguished between the two rivers, though he gave but a very

obscure idea of what course he imagined the Niger—as distinguished from the Egyptian Nile—to take.

Abulfeda and Edrisi, the most famous of the Arabian geographers, subsequent to the fall of the Roman empire, seemed to have imagined the Nile of Egypt and the Nile of the Negroes—as the river Niger was sometimes called—to have been vast arms of the same mighty river, the former running north into the Mediterranean Sea, and the other running west until it emptied itself into the “sea of darkness,” now called the Atlantic Ocean.

A short time before the important discovery of the vast continent of America, the Portuguese in the course of their mercantile enterprises had frequent occasion to touch upon the western coast of Africa, in making their way by the Cape of Good Hope to India. Several settlements were in consequence made in Africa, when various expeditions were sent towards the interior of that continent, but no very important discovery was made as to the Niger, of which the erroneous opinion of the Arabian geographers, giving it a westerly course, continued to be in most general acceptance; nor was it repudiated even by the eminent French geographers, who wrote upon the subject in the early part of the last century.

It was reserved for England to supersede controversy and speculation by ascertained fact; and the determined perseverance of the friends of discovery at home was fitly matched by the gallant spirit displayed by the various enterprising individuals, whom their liberality both courted and enabled to make the indispensable researches in the interior of Africa.

In the year 1788, some scientific and wealthy gentlemen

joined themselves into a body, under the title of the African Society, for the express purposes of promoting discovery in the interior of Africa; and they provided funds for the assistance of travellers, as well as of affording a handsome reward to whoever should achieve the discovery of the true course and source of the Niger.

The first intrepid missionary in the cause of science and civilisation who offered himself to the notice of this liberal association, was John Ledyard, an American by birth, and a man of great courage, personal strength, and love of the peril and excitement of travel in strange lands. He had already distinguished himself by accompanying the famous Captain Cook round the world, and by a pedestrian journey in Asia, scarcely, if at all, paralleled in the records of the adventurousness of individual travellers. His character was well known to the Society, and his proposals were at once agreed to; and surely his own account of himself, well known as it was to be literally true, was an all-sufficient justification of the Society's consent. "I am," said this extraordinary individual, "a man well accustomed to hardships. I have known both hunger and nakedness to the utmost extremity of human suffering. I have known what it was to have food given to me in charity as to a matchman; and I have not seldom been obliged to shelter myself under the miseries of that character in order to avoid calamities still greater and more perilous."

Considering the mission upon which he was now to proceed, a fitter training than that described in the above transcript of his own words could not very easily be conceived by the most imaginative; and the best hopes as well as the best wishes of his employers attended him in his departure from England.

Ledyard was instructed by his liberal and public-spirited employers, to enter Africa by the way of Egypt, and thence to make for the interior, in the latitude of the Niger. He arrived at Grand Cairo in the month of August 1788. It unfortunately happened that there was a considerable delay in the arrival of the caravan with which he intended to travel, and his eager spirit was so fretted and mortified that he was attacked with a fever, which speedily terminated his career.

The untimely and disastrous fate of John Ledyard prevented the Society from sending out any other missionary for some years afterword. At length, in the year 1795, Mungo Park, a spirited and accomplished Scotch gentleman, offered his services to the Society, by whom they were promptly and gladly accepted. To the other requisites for his momentous task, Mr. Park added a knowledge of medicine and botany; the former an invaluable weapon in the hands of a traveller among barbarous people, by whom skill in medicine is held in all but reverential admiration; and the latter well calculated to make his travels, even should he not accomplish all that was hoped as to the discoveries connected with the Niger, of great value in a scientific point of view. Making his way up the Gambia, as far as Medina, he at that place took a more northerly course, crossed the Senegal, and proceeded to Jarra, where he took a south-east course, and after numberless and severe hardships and perils, arrived at the Niger, and beheld it flowing from west to east. He continued to course along the banks of the Niger, until he reached Silla, which he states to be upwards of two hundred miles from Timbuctoo. From Silla, being much weakened by the trials and sufferings he had endured, he took the most direct route to the Gambia, whence he made his way to England, where he arrived towards the close of the year 1797.

Much had now been done, but still more remained to be accomplished. Several travellers sought to improve upon

his discoveries. The accomplished geographer and traveller, Major Rennell, was of opinion that the Niger, after flowing a thousand miles east of the city of Timbuctoo, would be found to terminate in a swamp called Wangura; while Reichard, a gifted German, contended that instead of terminating in that swamp, the Niger would be found to flow through it, and pass by a south-easterly course into the gulf of Guinea. It will hereafter be seen that Reichard was, as to a part of his merely speculative opinion, quite correct. Hornemann and Roentgen, two other travellers who were sent out by the Association early in the present century, have never since been heard of; and there is little doubt that they perished in their adventurous attempts.

The African Society, vast as its losses had been both in money and in the brave lives which no money could compensate for, determined to send out a new expedition. Its conduct was committed to Park. Six seamen and thirty soldiers were put under his orders, and the liberal sum of five thousand pounds was advanced by the government for the efficient equipment of the party.

Park and his party arrived in Africa safely, and he even arrived on the banks of the Niger, and accomplished the difficult task of building the vessel in which he determined to explore that river. The climate dreadfully weakened his party; so much so that when he dispatched a messenger to England, he had but five Europeans surviving. Not even this terrible extent of calamity, however, could daunt or damp his wonderful daring and confidence. "Though," says he, in one of the last letters he sent to England,—"though all the Europeans who are with me should die, and though myself should be half dead, I would still persevere; and if I could not succeed in the object of my journey, I would at least die in the Niger."

Fatally prophetic were those memorable words! Again and again he had stood by the death couch of his less enduring companions; again and again had even his iron constitution reeled beneath the attacks of the deadly climate. Through all danger and all suffering he was preserved; the pestilential breath of the climate; fatal to so many, had vainly blown upon him, and though on his passage up the Niger from Sansanding he was frequently attacked by the natives, he had invariably succeeded in beating them off. But on arriving at Boossà, he was once more attacked by the natives and driven into the Niger, where he perished! Several subsequent travellers endeavoured to explore the Niger to its termination; but nothing really efficient was done even by the gallant efforts of Clapperton, Laing, and Denham; and it was reserved for an attendant of the first-named of these illustrious travellers to solve the difficulties which had cost so much of treasure and of life.

In 1829, Richard Lander, a young man of humble birth and limited education, but of great courage and natural ability, and one who had greatly distinguished himself by his zeal and fidelity as one of the attendants of Clapperton, was selected as the fittest person to undertake the command of a new expedition. Accompanied by his brother John, he proceeded as far as Badagry, at which point they engaged several natives as guides and servants. Leaving Badagry at the end of March, they arrived at Boossà, on the 17th of June following. This is a large city, but consists of mere huts, and stands on the banks of the Niger; and indeed though cities are frequently spoken of in the journal of the Landers, we must not for a moment suppose that the cities of the Africans at all correspond with these of the Europeans. Frequently, indeed, they are of very vast extent, and very densely populated, but they are generally ill-built, and most offensively wanting in cleanliness.

"Cleanliness and order," say the Landers, "may contribute to the superiority of one place over another, which may likewise have the advantages of a rich soil and pleasant neighbourhood, and be ornamented with fine spreading and shady trees, but the form of the houses and squares is every where the same. Irregular and badly built clay walls, ragged looking thatched tops, and floors of mud polished with cow-dung, form the habitations of the chief part of the natives of Yarraiba,* compared to most of which a common English barn is a palace. The only difference between the residence of a chief, and those of his subjects, lies in the number, and not in the superiority of his court-yards, and these are for the most part tenanted by women and slaves, together with flocks of sheep and goats, and abundance of pigs and poultry, mixed together indiscriminately."

Perhaps nothing can give the untravelled reader a more vivid notion of the manners and condition of the people among whom the Landers travelled, than a few extracts from their life-like description of a horse-race at a city called Kidma.

"When we arrived the king had not made his appearance, but his absence was fully compensated by watching the anxious countenances of the animated multitude. Manchester cloths of inferior quality, but of the most showy patterns, and dresses made of common English bed-furniture, were fastened round the waists of several sooty maidens, who, for the sake of fluttering for a short hour in the gaze of their countrymen, had sacrificed the earnings of a twelvemonths' labour. The distant sound of drums at length gave notice of the approach of the king, and every eye was immediately turned in that direction. The king rode onwards, followed by a number of handsome-looking men on fine steeds; and the cavalcade halted in front of his house. This we thought the proper time to give the first salute, so we accordingly fired three rounds, and our example was followed by two soldiers with muskets, at least a century and a half old. Preparations had in the meantime been going on for the race. The men were dressed in caps and loose robes, and trousers of every colour; boots of red morocco leather, and turbans of blue and white cotton. The horses were gaily caparisoned, the Arab saddle and stirrup were in general use, and the whole group presented an imposing appearance. The signal for starting being given, the impatient animals sprang forward, and set off at full gallop. The riders brandished their spears, the little boys flourished their cow tails, and the chief himself mounted on the finest horse on the ground, watched the progress of the race, while tears of delight were starting from his eyes. The race was animated and well-contested, and only terminated by the horses being thoroughly fatigued and out of breath; but though every one was emulous to outstrip his companion, honour and fame were the only reward of the competitors."

From all that is stated by our enterprising travellers the Landers, there seems to be no good reason to doubt that the Niger may be traversed safely by English trading-vessels, if there be but care taken to prevent abandoned characters injuring our national character by acting dishonestly or insolently. The soil of central Africa is wonderfully fertile, and we could draw from that country a vast amount of natural productions, in exchange for our manufactures. And what a boon would this be to our swarming artisans of Sheffield, of Manchester, of Birmingham, of Paisley, and of Glasgow! And right little difficulty will our adventurous capitalists experience in establishing commercial connexions

with the natives. By the majority of them white men are liked, and among them all trade is a perfect passion. When we reflect upon the number of millions of human beings who will thus be gradually civilized, when we consider how vast an influence the trading expeditions up the Niger may have upon the diffusion of Christianity, as well as of civilisation, it is really astonishing that among the numberless and various speculations which have excited public attention, there has never yet been a Company formed for the purpose of navigating the Niger, and trading with the natives of central Africa.

QUARRELLING.

THE readers of "The Guide," we anticipate, will be not a little astonished on finding that we are about to give them directions for Quarrelling! They will think that we are strangely inconsistent; but a few words of application will suffice to show them that such is really not the case.

We have often thought that if mankind could only be persuaded and enabled to define their *terms*, many a folly, aye and many a sin, too! would remain uncommitted, by which shame and sorrow are produced. And certainly could this very desirable practice and power be introduced, controversies and bitter logomachies would become scarcer and scarcer every day until they were utterly banished from the face of the smiling and peaceful earth. In our own particular case, something more than a mere definition is necessary for our vindication from the charge of inconsistency to which, at first sight, the title of your present article *may* appear to render us liable. And, therefore, before we proceed to say what we mean by "Quarrelling," we will say a few words about what we do not mean by that term.

Angry and dyslogistic language can never be used without more injury to the person who uses it than to the person to whom it is applied; and besides all the other reasons why it should be most sedulously avoided, there is that of its extreme and inevitable pettiness. Even where the offensive sin of using what is emphatically called *bad language* is not committed—and we would fain hope that *that* disgusting vice is to be met with only among the very dregs of ignorance and crime—there is something indescribably mean about the crimination and recrimination in which weak-minded people indulge, when they receive, or, which is quite as often the case, fancy that they receive, any cause of offence. Petty hickering of every description must be avoided by every one who aims at any thing like real dignity and respectability of character and conduct; it is painful enough to witness its indulgence among children and uneducated people, but it is really terrible to find such want of good sense and right feeling among men who claim to be of sane mind and good education.

But though we thus entirely repudiate all intention of ever so indirectly encouraging the contemptible practice of wordy squabbling and strife, we hold that there are certain occasions when what we call quarrelling becomes a positive and very important duty.

Great, indeed, should be the care exercised in choosing companions; but,

"Neither men nor angels can discern
Hypocrisy;"

and it is unfortunately but too often the case that the most vicious people can assume the most winning aspect. The wisest and purest are liable to be deceived by first appear-

* A kingdom of the interior.



View of the Falls of Niagara.

The body of water which composes the middle part of the Great Fall is so immense, that it descends nearly two-thirds of the space without being ruffled or broken; and the solemn calmness with which it falls over the edge of the precipice, is finely contrasted with the perturbed appearance it assumes after having reached the gulf below. But the water towards each side of the fall is shattered the moment it drops over the rock, and loses, as it descends, in a great measure, the character of a fluid, being divided into pyramidal shaped fragments, the bases of which are turned upwards. The surface of the gulf below the cataract presents a very singular aspect, seeming as it were filled with an immense quantity of hoar-frost, which is agitated by small and rapid undulations.

The particles of water are dazzlingly white, and do not apparently unite together as might be supposed, but seem to continue for a time in a state of distinct comminution, and to repel each other with a thrilling and shivering motion, which cannot easily be described.

The noise made by the Horse-shoe Fall, though very great, is infinitely less than might be expected, and varies in loudness according to the state of the atmosphere. When the weather is clear and frosty, it may be distinctly heard at

the distance of ten or twelve miles; nay, much farther when there is a steady breeze: but I have frequently stood upon the declivity of the high bank that overlooks the Table Rock, and distinguished a low thundering only, which at times was altogether drowned amidst the roaring of the rapids above the cataract. In my opinion, the concave shape of the Great Fall explains this circumstance.

The noise vibrates from one side of the rocky recess to the other, and a little only escapes from its confinement; and even this is less distinctly heard than it would otherwise be, as the profusion of spray renders the air near the cataract a very indifferent conductor of sound.

The road to the bottom of the fall presents many more difficulties than that which leads to the Table Rock. After leaving the Table Rock, the traveller must proceed down the river nearly half a mile, where he will come to a small chasm in the bank, in which there is a spiral staircase, enclosed in a wooden building. By descending this stair, which is seventy or eighty feet in perpendicular height, he will find himself under the precipice, on the top of which he formerly walked. A high but sloping bank extends from its base to the edge of the river; and on the summit of this there is a narrow slippery path, covered with angular fragments of

rock, which leads to the Great Fall. The impending cliffs, hung with a profusion of trees and brushwood, overarch this road, and seem to vibrate with the thunder of the cataract. In some places they rise abruptly to the height of one hundred feet, and display upon their surfaces, fossil shells, and the organic remains of a former world; thus sublimely leading the mind to contemplate the convulsions which nature has undergone since the creation. As the traveller advances, he is frightfully stunned by the appalling noise; for clouds of spray sometimes envelop him, and suddenly check his faltering steps—rattlesnakes start from the cavities of the rocks—and the scream of eagles, soaring among the whirlwinds of eddying vapour which obscure the gulf of the cataract, at intervals announce that the raging waters have hurled some bewildered animal over the precipice. After scrambling among piles of huge rocks that obstruct his way, the traveller gains the bottom of the fall, where the soul can be susceptible only of one emotion, viz. that of uncontrollable terror.

It was not until I had, by frequent excursions to the Falls, in some measure familiarized my mind with their sublimities, that I ventured to explore the penetralia of the Great Cataract. The precipice over which it rolls is very much arched underneath, while the impetus which the water receives in its descent projects it far beyond the cliff; and thus an immense Gothic arch is formed by the rock and the torrent. Twice I entered this cavern, and twice I was obliged to retrace my steps, lest I should be suffocated by the blasts of dense spray that whirled around me: however, the third time I succeeded in advancing about twenty-five yards. Here darkness began to encircle me: on one side the black cliff stretched itself into a gigantic arch, far above my head; and on the other, the dense and hissing torrent formed an impenetrable sheet of foam, with which I was drenched in a moment. The rocks were so slippery that I could hardly keep my feet, or hold securely by them; while the horrid din made me think the precipices above were tumbling down in colossal fragments upon my head.

It is not easy to determine how far an individual might advance between the sheet of water and the rock; but were it even possible to explore the recess to its utmost extremity, scarcely any one, I believe, would have courage to attempt an expedition of the kind. A little way below the Great Fall, the river is, comparatively speaking, so tranquil, that a ferry-boat plies between the Canada and American shores, for the convenience of travellers.

When I first crossed, the heaving flood tossed about the skiff with a violence that seemed very alarming; but as soon as we gained the middle of the river, my attention was altogether engaged by the surpassing grandeur of the scene before me. I was now within the area of a semicircle of cataracts, more than three thousand feet in extent, and floated on the surface of a gulf, raging, fathomless, and interminable. Majestic cliffs, splendid rainbows, lofty trees, and columns of spray, were the gorgeous decorations of this theatre of wonders, while a dazzling sun shed refulgent glories upon every part of the scene.

Surrounded with clouds of vapour, and stunned into a state of confusion and terror by the hideous noise, I looked upwards to the height of one hundred and fifty feet, and saw vast floods, dense, awful, and stupendous, vehemently bursting over the precipice, and rolling down, as if the windows of heaven were opened to pour another deluge upon the earth. Loud sounds, resembling discharges of artillery or volcanic explosions, were now distinguished amidst the watery tumult, and added terror to the abyss from which they issued. The sun, looking majestically through the

ascending spray, was encircled by a radiant halo; fragments of rainbows floated on every side, and momentarily vanished, only to give place to a succession of others more brilliant. Looking backwards, I saw the Niagara river, again become calm and tranquil, rolling magnificently between the towering cliffs that rose on either side, and receiving showers of orient dew-drops from the trees that gracefully overarched its transparent bosom. A gentle breeze ruffled the waters, and beautiful birds fluttered around, as if to welcome its egress from those clouds of spray, accompanied by thunders and rainbows, which were the heralds of its precipitation into the abyss of the cataract.

"WILL YOU PROMISE?"

WERE it but possible to make men aware of the vital importance of punctuality to every kind of success, those who act would be spared many a bitter disappointment, and we, who write as well as act, should be spared one of the bitterest mortifications to which a conscientious writer can be exposed; namely, that of feeling that good advice is a commodity which is by no means in the general request in which it ought to be.

It seems a mere truism that men are more frequently bad—in all the various shades of meaning of that word—as a consequence of ignorance than as a consequence of any actual love of badness. Such, however, is very far from being the case; and this very reflection, which to the merely superficial reader seems so mere and very a truism, is in fact the corner-stone of the hope of the philanthropist, and the chief justification of the labours of the pale, solitary, and devoted sage, who "shuns delight, and lives laborious days," in the hope that, if not immediately, yet at some future, however distant, day, his labours may bring forth fruits of rich blessing, mental and social, to the unthinking and probably unerring many, whose ignorance he would fain dispel as the surest as well as speediest means of terminating their other ills. If it were not thus, if men were bad, not from ignorance, but from a sheer, headlong, innate, and headstrong ineradicable love of evil doing, we should call those who aim at human improvement not sages, but madmen; for they would be even as men who would lift vast weights without a fulcrum—give the eyes of the dead the image of colours—dead ears the power of discriminating sounds! No! He who would fain exhort his fellow-men to virtue, is not exhorting them to go against their interests, nay, nor against their proper feelings either. He merely exhorts them to consult their real interests, and to take as the groundwork of their feelings not this or that specious assumption, but sound principle founded upon sound reasoning. It is thus even in the weightiest and most vital affairs, and by parity of reasoning it is thus in the case of the minor morals also. Thus, for instance, there are many who are not only guilty of want of punctuality, but who even pride themselves upon it. Make an appointment with one of these people, and, no matter whether it be the most trivial pleasure or the most important business that you have to meet about, one thing may be very safely predicated—you will have to wait; on no account would he be so "vulgar" as to be "punctual;" in other words, the poor, weak-minded creature fancies that he is exceedingly "fine," when in point of fact he is guilty of a deliberate breach of his word, a silly waste of his own time, and a most unjustifiable and insolent intrusion upon yours.

We know perfectly well that very few of those who pride

themselves upon being always behind their time are accustomed to regard the subject of punctuality in this serious light, but that is the very reason why such people should have their silliness set before them in its true colours. Their time may be, and probably is of an exceedingly small value, but they have no right to treat our time as though it were as valueless as their own. Moreover, how can they presume to expect us to hold them in respect when they have deliberately told us falsehoods? They have promised without the slightest intention of keeping their words, and if they will take the trouble to turn to the amusing volume of Mrs. Opie,* we fancy that they will find themselves exceedingly little flattered by certain descriptions and definitions therein to be met with.

It is not merely in the way of time that certain persons seem to delight in giving annoyance and disappointment to their friends. The gentleman in the Vicar of Wakefield is the type of the magniloquent friends whom we may every day meet with. To hear them you might suppose that you have but to wish for mountains of gold, and that the said mountains shall at once make their obeisance to you. Promise! Ay, marry that will they; defraud you of your anticipative gratitude, prevent you from making your arrangements with more trustworthy people, and then—complain of the heat of the weather, or wonder whose horse will win "the Derby," at the very moment when you, wearied, jaded, and heart-stricken, are musing in a perfect agony of mind upon the almost utter impossibility of keeping your word to some third person. Shame upon such conduct! How dare we, for the sake of gratifying our own idle and petty craving for applause, how dare we thus to tamper with the feelings, and probably jeopardize the fortune and the reputation of those whom we call our friends.

Nothing requires deeper consideration than the choice between saying "Yes," or "No;" but, having once said the former, no matter what the amount or consequence of the subject-matter, we should hold that word as sacred as the most solemn oath. Want of thought in some, and want of feeling in others, make disregard of pledged words so common, that the old proverb seems to have become a serious rule of conduct. But those who take for their maxim and their motto "Promises are made to be broken," are begged to reflect a little: having done so, they must have oddly constituted minds indeed, if they do not discover that "Promise breakers are made to be despised."

SWIMMING.

We trust it is quite unnecessary for us to aver that we consider the word Education, in its proper sense, to include a vast deal besides what is called book-learning. Every thing that tends to keep the body in health and comfort is worthy of the attention of all who perceive how intimate a connexion there is between the state of the body and that of the mind. "The mind," it has been truly said by an accomplished modern writer, "is, to no trifling extent, the very slave and minion of the frail body;" and almost every one has had painful reason to confess, that, with bodily weakness, the weakness of the mind is closely connected. To the body, then, even for the mind's sake, we owe care and attention, avoiding all those things which reason or experience assures us to be hurtful, and availing ourselves of all those things which, by the same means, we know to

be beneficial. Among these latter, bathing deserves a far higher place than it holds in the minds of the great majority among us: As an insular people, one would suppose, that swimming would be as regularly and methodically taught to our boys as any other useful branch of education. So far, however, is this from being the case, that swimming is chiefly learned by boys as a mere amusement, if learned at all, and by only a comparatively few even thus.

At the present season of the year there are few greater or more salubrious enjoyments than bathing; and as we believe that every boy ought to learn so useful an art as that of swimming, we shall briefly give the substance of Dr. Franklin's plain and sensible directions for learning it.

Experiment is, for the most part, far more effectual in forming and impressing opinion than any mere argument can be. Now, therefore, instead of endeavouring to persuade the natatory novice that the relation between his body and the water is such, that he must float if he will but lie coolly and quietly in such a position as to keep his mouth free to breathe—instead of endeavouring to persuade him of this, we shall briefly instruct him how to satisfy himself of it. Let him take an egg, or a large white stone, and throw it into clear water, between himself and the shore; having done this, let him endeavour to bring it up, and he will find, that so far is his body from having the natural tendency which he has hitherto attributed to it, namely, that of sinking to the bottom,—it is, in fact, only by the exertion of considerable physical force, and after repeated failures in your attempt, that you are enabled to overcome the water's elastic and supporting power.

Simple as this experiment is, it cannot fail to assure the young swimmer of the important fact, that his body is of less specific gravity than the water. But the difference is not so great but that it may be counterbalanced by even a trifling error on the part of the swimmer, for it is the upper part of the body which is so very much lighter than water, while the legs are heavier; and if, by want of courage, the swimmer fails to keep his lungs well inflated, and, in the course of his nervous (and be this always borne in mind, his utterly useless) floundering, fill his lungs with water instead of air, the body at once becomes heavy enough to sink. In salt water even the legs are not so heavy as water, but the head is; and therefore swimming on the back, or floating, as it is called, may be practised in salt water with the greatest possible ease, provided care be taken to keep the body from turning, which a slight occasional motion of the hands will ensure. In fresh water floating is not so quiescent an action, as, if the hands be not frequently exerted, the legs and body gradually become submerged.

The merely mechanical operations of this healthful, manly, and, on very many occasions, most important art, require no explanation here. What we wish to inculcate are, the propriety and the ease of learning an art upon which every one is liable, some day, to depend for the means of saving his own or another's life.

Few situations can be more vexatious than that of being obliged to look idly on when a fellow-creature is perishing before our eyes, merely because we are destitute of the mechanical skill which any agile and healthy schoolboy would easily acquire in a single summer. On the other hand, it is not easy to conceive any thing more delightful than the reflection upon our having been, under Providence, the means of prolonging a human life, and of sparing the feelings of those who, but for us, would have been deprived of one who is dear to them.

Like most merely bodily powers, that of swimming is both the most quickly and the most efficiently cultivated in early

* "Lying in all its branches"—one of the most searching and acute little works that can be put into the hands of a young thinker.

boyhood; but even where it has been neglected until long after that season has gone by, none need despair who have the use of their limbs and of their sight: in fact, nearly the best swimmer we have ever known did not commence learning until he was very nearly thirty years of age.

THE BEE.

THE genus *Apes* contains a greater number of varieties than any other of the numerous genera of insects; but the only species of which we shall speak is that which is domesticated—the useful and wonderful honey-bee. From the earliest period these little insects have excited curiosity and admiration; we find them mentioned in terms of eulogy by the most ancient writers; and in modern times, both their individual structure and their truly astonishing political economy, have engaged the scientific attention of some of the acutest and most patient naturalists the world ever produced.

In each community of bees, whether hived under the protection of man, or lodged in the trunk of some ancient tree in the rarely-trodden and pathless forest, there are three distinct kinds and ranks, viz. the queen bee; the drones, which contribute no labour to the general good; and the common, or working bees, which are by very much the most numerous, an ordinary hive usually containing from six to seven thousand of them.

The queen bee is larger than the working bee, and longer than the drones, but not so thick as they. In every hive there is only one queen bee, and she is the parent of thousands upon thousands. Of the drones nothing more need be observed, than that they seem, from the shortness of their proboscis, not to be intended to gather honey, and have not even a sting with which to aid in defending themselves or their hive.

The labouring bees have a trunk, or proboscis, with a brush-like tongue, for the purpose of extracting the honey-yielding particles from the flowers; and have also teeth, which serve them both in making wax, and in constructing their cells. These processes, as well as that of making honey, we shall describe in a future paper, confining ourselves in this merely to the structure of the insect.

The belly of the bee is divided by six flexible concentric rings, which the little insect can, at will, slip over each other, thus shortening its body, a process very necessary, to enable it to collect wax from such flowers as have cups too shallow to admit of its body, while of its proper length, being completely inserted in them. Within the belly are contained, besides the intestines common to other insects of the same genus, the sting, the venom bag, and the honey bag. The sting, which this little insect has so much need of to protect the fruits of its industry against the numerous enemies which are constantly endeavouring to plunder it, consists of three parts—the sheath, and two sharp and penetrating darts, which are barbed like treble or quadruple fish hooks. When irritated or attacked, (for otherwise the bee is extremely gentle,) the insect forces first the sheath, and then the darts, into the offender, and as the darts enter, they are accompanied by a drop of liquid from the venom bag. The force with which the barbs insert themselves in the wound is so great, that it is very common for the sting to remain, which of course very greatly increases the pain and inflammation of the wound, but at the same time causes the almost immediate death of the bee.

The honey bag is a little crystal-like bag, perfectly

transparent. The body of the bee, on the upper part, is strong, as also are the rings of the belly, but between those rings the belly is so tender, that the slightest sting suffices to cause the instant death of the insect.

BEE-HUNTING IN AMERICA.

THOUGH man has contrived in some measure to domesticate the honey-bee, that beautiful little insect is far more numerous in a wild than in a domestic state; and we who have only seen honey by the hive-full can scarcely form an idea of the vast combs which fill the hollow trunks of the largest forest trees in the primeval woods of America.

Swarm after swarm, quitting the parent colony and taking up their residence in hollow trees, the sequestered woods of America may literally be said to be "flowing with honey," and there are great numbers of active and hardy men who get their living by finding out and plundering the rich repositories of this most wholesome of all saccharine substances. These men are called "bee-hunters," and the skill and quickness of eye they display are truly astonishing, and show that if civilized man is inferior to the roving Indians in the quickness of the senses, the inferiority arises not from original difference of conformation, but from the want of training and habit.

When the bee-hunter sets out upon an expedition he provides himself with a small box of honey, and a bag containing flour or other white substance; he then walks briskly along until he finds a bee busily engaged in extracting the juices of a wild flower. Approaching as close as he can without danger of disturbing the insect, he lays down his box of honey and retires for a short distance. He has not long to wait; attracted by the rich fragrance of the honey the bee quits the flower, and is soon too busy in making free with the contents of the box to notice the close approach of the hunter, who dexterously sprinkles some meal upon the insect, which, when it has gathered a sufficient load, sets off in a direct line for the hive-tree. The hunter now retires a short distance from the box of honey, certain that the unsuspecting bee will return, guiding some of its companions to the treasure. This invariably takes place, and so accurately can the bee-hunter judge of the distance traversed by the marked bee that he can walk all but directly to the spot. A little patience remedies any slight mistake as to distance, and having discovered and marked the situation of the hive-tree, the hunter returns home to procure the necessary implements and assistants.

The nest is almost invariably built at a considerable height, for the bees have many enemies; on arriving at the hive-tree, therefore, the bee-hunter and his party, who are prepared with pails to hold the honey, axes, and materials for striking fire, having determined in which direction to fell the tree, two men lay their axes to the root, and after a few vigorous strokes, down thunders the mighty trunk. In the mean time the remainder of the party have kindled torches of dry birch wood, and the instant the tree topples upon the ground, the flames of the torches are applied to the aperture of the nests, burning the poor insects as they rush out in terrified and confused swarms. The sight now is such as would shock any one not rendered callous to it by long habit. Many of the bees are of course burned to death on the instant, but still greater numbers of them may be seen crawling and writhing in agony upon the ground, their wings being withered, but their bodies only partially burnt. In spite of the lurid flames of the torches, thousands of the

bees gallantly attack their despoilers, and some of the men generally get very severely stung ; heedless of this, however, the axe-bearers lay open the trunk of the tree, and the comb still covered with bees is dragged forth. Frequently it happens that the store is too great for the vessels the bee-hunters have brought with them ; in which case they return a second time. The quantities of honey thus taken every year are immense.

[No. V.—SELF-INSTRUCTOR IN BIOGRAPHY.

CHATTERTON.

AMONG the remarkable English votaries of knowledge few are more remarkable than Chatterton, the author of the pretended poems of Rowley. But while we speak with all due laud of the genius of Chatterton, we introduce him to our readers, not as an exemplar, but as a warning, as a beacon to scare from the treacherous sands, and not one to invite and to guide to the secure and friendly harbour.

Thomas Chatterton was the posthumous son of a very poor schoolmaster, and was born at Bristol in the year 1752. At a very early age he went to school, but made little progress ; and subsequently he was removed to St. Mary Redcliffe Charity School, where he remained from his eighth to his fifteenth year, receiving a good, but merely plain education. Though when very young he had shown no great inclination for study, his mind underwent a remarkable change just as he attained his tenth year, when he abandoned all the boyish sports common to his years, in order to retire to solitary places to read. Of his passion for reading, and of the precocious severity of his literary task, we may form some judgment from the fact, that he has left a list of nearly seventy works which he had read between his eleventh and twelfth birth days, and the majority of which are divinity and history.

Such a way of life must necessarily have made him a well-informed youth ; and before he completed his fifteenth year he was articled to a respectable solicitor. While in this gentleman's employment, and resident in his house, young Chatterton devoted most of his, perhaps, too ample leisure to the study of Chaucer, and other old poets, and to that of the glossaries which are appended to them.

From a very early age he seems to have had a strong belief in his own powers, and a no less strong desire to make those powers both felt and rewarded by society. So far all was well, and with a quick and sagacious mind, such as he very obviously possessed, he might have been a prosperous, as well as happy, great and admired man of letters. But unfortunately for himself he seems to have piqued himself not a little upon his dexterity in simulating hand-writings, and instead of aiming at becoming admired by the world for his own achievements, he took the odd resolution of pretending to discover that which he wrote ; and that nothing might be wanting, he even took ingenious means for so discolouring the paper or vellum upon which he wrote his black letter forgeries, as to give his work the appearance of being many centuries older than it really was.

While still a mere boy, for he was not yet quite sixteen, he wrote to the editor of a Bristol paper, and sent him an article giving an account of the opening of the Old Bridge, which he stated to be the genuine transcript of an ancient manuscript. Subsequently he said that that manuscript was one of very many which had been found in an old chest, in the vestry of St. Mary, Redcliffe ; some of them being the composition of Mr. Canyng, a Bristol merchant of the time of Edward IV., and of Edward Rowley, a priest of the same time. Finding that such pieces as he suffered to be seen were not merely supposed to be genuine manu-

scripts of the time named, but also that they were allowed to have great merit quite apart from their mere antiquity, he became greatly dissatisfied with his situation as a lawyer's clerk, and he accordingly studied harder than ever, and wrote various articles for the periodicals, upon such topics as seemed most likely to be instantly profitable. While thus engaged, he wrote to Horace Walpole, afterwards Earl of Orford, sending him specimens of his "ancient manuscripts," and offering more. A very brief correspondence ensued, for Walpole soon saw through his correspondent's deceit, and Chatterton was not of a temper mildly to listen to reproof, however mild in its tone, or however well he knew it to be deserved.

Some writers have very harshly and unjustifiably blame Horace Walpole for his part in this affair. As a literary man he had no right to countenance a gross literary fraud ; as a gentleman and a man of honour, how could he take any personal interest in a man, whose very letter of introduction was a long sorites of gross falsehoods ?

Stung by his disappointment, in making use of the power and influence of Walpole to raise him in society, Chatterton became morose and fitful ; and having written what he called his Last Will and Testament, in which he avowed his determination to commit suicide, on the following day was (probably not a little to the joy of both parties) discharged from his employer's service ; and, early in the year 1770, he added one name to the vast host who had from time to time rushed up to London in the belief that every bookseller is a Cæsus, and that every author may be so if he choose.

Nothing but an exceeding levity and presumption prevented this strange man from actually getting, by legitimate literature, a living far superior to that which it affords to the majority of its votaries. He only came to London in April, and in the very first week of the following month we find him writing to his mother :—"I am settled, and in such a settlement as I desire. I get four guineas a month by one Magazine, and shall engage to write a history of England and other pieces, which will more than double that sum. Occasional essays for the daily papers will more than support me. What a glorious prospect !"

Alas ! this really not bad prospect was utterly thrown away by his want of temper and want of principle. He abandoned his more laborious but, probably, far more profitable and permanent employment, to prostitute his fine talents as a mere hackney writer of politics.

He endeavoured to attach himself to the well-known Alderman Beckford, of whose fierce opposition politics he represented himself to be an exceedingly zealous admirer ; but the alderman died before Chatterton could in anywise profit by his patronage or influence, and he now became as dreadfully and unnecessarily depressed as formerly he had been ludicrously and unwarrantably elated and confident ; and from mere moroseness his temper gradually progressed to a perfect ferocity of anger, even at the kindest services which were offered to him by the humble people where he

now resided. We have seen, that even at an earlier and less depressed part of his life, he had no scruple in avowing his right and even intention to be guilty of the crime of self-slaughter. This dark idea became more and more confirmed as his situation became more and more hopeless, and at length, while even yet under eighteen years of age, he committed suicide, by taking a quantity of arsenic, and thus left another proof to the world of the eternal truth of Dr. Johnson's assertion, that no qualities of intellect can adequately compensate for the want of sound moral and religious principle.*

DO COMETS INFLUENCE THE WEATHER?

In the "good old times" the comet, as our readers know, could strike terror into whole nations of people priding themselves upon their civilisation, and arrogating to themselves the capacity as well as the power to sit in judgment upon the science of a Gallileo or the divinity of a Wyckliffe. We no longer hear of a comet driving all ranks of men into an insanity of terror, and

"Perplexing monarchs with the fear of change;"

yet it is less than four centuries ago that the generality of men throughout Europe were persuaded that the approaching comet was destined to destroy the earth. The one to which we allude appeared in 1456.† The general alarm was greatly aggravated by the conduct of Pope Callixtus III.; that pontiff daily ordered the church bells to be rung at noontide, extra *Ave Marias* to be repeated; and as the Turks were at that time threatening to overrun Europe, a special protest and excommunication was composed, directed equally "against the devil, the Turks, and the comet." The ignorant people, seeing that the pope and the clergy, whom they supposed to be the depositaries of all learning, as well as of all sanctity, exhibit such serious symptoms of alarm, became doubly terrified; though the including of the Turks in the form of the anathema, might surely have struck any one as being a somewhat supererogatory, seeing that the comet was to destroy not Heathenism or Christendom in particular, but the entire world. However, reasoning was then not greatly in use among the laity, and terror became the ruling passion with the multitude. The confessionals were crowded night and day, and daily and nightly were rich and poor hurrying to give up their money, and assign their lands to the church. The comet appeared, and the general terror and general fervour of anathema were redoubled; the comet disappeared, and though men believed that the power of the church had scared away this unwelcome visitant ere it had power to do the threatened mischief, men began to reflect upon the value of land, and the exceeding inconvenience of lack of money! But the pope had no notion of parting with what terror had caused to be surrendered to him, and if some avaricious or needy persons permanently regretted that they had been in so great a hurry to part with their property, the great majority thought the church well entitled to all it had received in consideration of the signal triumph of its anathema over the once dreaded, but now defeated and banished comet. The age for such gross delusion on the one hand, and imposture on the other, has now for ever passed away; but there still remains a very general impression that comets have a great influence on the

weather, and "the vintage of 1812" is to this day held in high estimation, in the supposition that the presence of the comet gave that vintage an unusual excellence; and we have no doubt that a *soi-disant* connoisseur would pretend to find the exact "comet" flavour in wine made—the year before last!

Let us look, however, at ascertained facts. The comet is no longer accused of producing war, pestilence, and famine, nor of a malicious intention to displace the earth with its tail; all we now accuse this wanderer of the skies of doing is making the weather unbearably hot for mankind, but unexceptionable for the "growth of wines." Let us see, then, how matters stand as to the present century; and any earlier period we are quite contented to leave open to the fancies of those who are curious in wines and superstitious whimsies; if they insist that comets make the weather sultry previous to the present century, we make them a respectful bow, and reply—"Mais! nous avons changé tout cela!" In the year 1803 no comet made its appearance, and in the year 1805 we had two; the former year was considerably warmer than the latter! In the year 1808 we had four comets, and in the year 1809 not one; but the former year was colder than the latter! We next come to the "famous" comet of 1811, that which is of so much consequence to gentlemen nice in the selection of wines. That year was one of the three warmest in thirty! No doubt it was "all owing to the comet!" Alas! all the warm weather of 1811 had passed away before the *causing* comet made its appearance; and though the comet was present during the greater part of the summer of 1812, that year was not only colder than 1811, during the greater part of which the comet was away, but it was one of the six coldest years in a series of thirty! In the year 1826 we had the unusually large number of five comets, but so far was even that number from increasing the heat of our weather, that the year 1826, with its five comets, was actually colder than the year 1831 which had not one comet!

With the peculiar tastes of those who are partial to antique fables it is scarcely worth while to interfere; let them, if they please, imagine that the comet had the power of dispensing heat, though they would blush to suppose that it produced war, or threatened the destruction of our terrene totality. We are quite willing to leave them undisturbed in the belief that the comet used to increase the sultriness of our atmosphere, but, with the tangible facts before us, we beg distinctly to deny that the comets continue to have such power.

"POVERTY'S NO DISGRACE."

We have taken notice, in former numbers of this work, of certain "sayings;" that which stands at the head of our present article is deserving of very great consideration; for while it is true to a very considerable extent, it seems far more completely true than it really is. When the Scottish poet, Burns, asks, partly in astonishment and partly in censure,

"Is there for honest poverty
Wha hangs his head and a' that,"

every honest man, whether rich or poor, will sympathize with the sentiment, for of honest poverty no man has any good reason to be ashamed. But there is a sort of poverty which is shameful, and we but too commonly find that the people who are the most fluent in assuring us that "poverty's no sin," and "poverty's no disgrace," are precisely the

* The whole of the passage to which we refer, and which will be found at the close of the great moralist's *Life of the poet Savage*, is especially well worthy the careful perusal and frequent meditation of the young.

† The same which again visited us in 1835.

people whose poverty is disgraceful to them, as resulting in the combined sins of idleness, extravagance, and want of good feeling for their dependents and connexions. Such people seem to suppose that they can blind not only themselves, but all the rest of the world too; and, really, when we consider how very coolly and unresistingly most people listen to what an instant's reasoning would show to be very contemptible sophistry, the opinion, presumptuous as it is, derives not a little encouragement and countenance from the fact. But if, in the very nature of circumstances, it is out of our power to let all the world know, when all the world is engaged in being guilty of very marvellous silliness, we may at least presume so far as to warn our own especial friends and readers, not to be seduced by the world's bad example. Poverty is a sin, poverty is disgraceful, whenever poverty results, either from want of industry in earning, or from want of care in duly hoarding. If we were mere brute beasts, endowed with no higher qualities than mere blind mechanical instincts, we could surely be guilty of no baser or more contemptible act of brutishness, than to waste the season of our health and strength in idleness, or expend the earnings of that but too brief season in making it still more brief by indulgence in debauchery and waste. But gifted with reason, living beneath the full light of revelation, living amid such an abundance of intellectual weapons, and intellectual delights, as the proudest monarchs of an elder day could not imagine, far less command; if we, thus circumstanced and thus blessed, be guilty of condemning ourselves and our dependents to years of real pain, rather than deny ourselves a few minutes or hours of unreal and delusive pleasures; it is little short of absolute insanity to speak of such monstrous absurdity and injustice, as being "no sin" or "no disgrace." It is both. We wilfully throw away not merely our own comforts and those of our immediate dependents, but we also put wholly out of our power the performance of those numberless good acts which the *real* misfortunes of mankind render so indispensably necessary. And having thus put it out of our power to do good to others, and having rendered it tolerably certain, that if any extraordinary accident shall happen to us we have no other resource than to become a burthen to society, instead of one of its efficient and independent members and assistants. And all this wilfully inflicted injury to ourselves and others is, forsooth, neither "sin" nor "disgrace!" Shame upon them who wilfully talk such presumptuous nonsense!

REMARKABLE CAVERNS.

(Continued from p. 175.)

ONE of the most wonderful caverns of which we have met with any account, is that situated on the western coast of Hoongo, an island in the South Pacific Ocean. Even at low water the entrance to this cavern is situated below the surface of the sea. The celebrated traveller, Mr. Mariner, who resided for some years in this island, walking along the beach one day, was surprised to see several young chiefs dive in succession into the sea, and not make their re-appearance. His curiosity was at length so highly excited, that he obtained permission to follow a young chief who dived into the water, the light which flashed from his heels at every stroke being amply sufficient to guide Mr. Mariner. On passing through the entrance to the cavern, Mr. Mariner heard the voices of the assembled chiefs, but could see nothing, the faint glimmering of light which was reflected from the bottom of the cavern being scarcely sufficient even to

"——— make darkness visible."

Anxious to see the famous cavern, of which he had often heard, but of which he was now for the first time an inmate, Mr. Mariner left his companions, and having obtained a pistol and a torch, which he wrapped up securely enough to guard them against the water during his short and speedy transit, he again dived down to the cavern. On arriving there he obtained a light by flashing his pistol, and having kindled his torch, the submarine cavern was beautifully illuminated for, most probably, the first time during its existence. It was about forty feet in its greatest width, and the same in height, and its roof was hung with massive stalactites, which to a cursory glance bore the exact resemblance of the gothic arches and ornaments of an ancient church. Curious to ascertain how it was that in such a situation he and his companions breathed an atmosphere as pure and free as that upon the main land, Mr. Mariner repeatedly swam round the cavern, and examined it in every accessible part by the light of his torch, but without succeeding in the discovery of any aperture by which air could be admitted. When he did this it was nearly high water; but another individual making the same search at low water, discovered a hole of nearly a foot in diameter, through which there was a strong and steady rush of air, but unaccompanied by even the slightest glimmering of light.

It is upon the description Mr. Mariner gives of this very remarkable cavern that the late Lord Byron founded his fine poetical description of a similar scene in his poem entitled "The Island, or Christian and his Comrades."

MARCH OF IMPROVEMENT.

THERE is assuredly no disposition in the public mind to undervalue the amount of the social, mental, and moral improvement of the world. The press has its thousands of enthusiastic eulogists, science and literature have taken their high stations among the ruling powers of the world, and from palace to hut the might and the right of mind are both manifested and acknowledged. All this is very cheering, but we honestly confess that we should be better pleased if the eulogy which is thus resounding in every corner of the empire were a little more specific;—in other words, though we quite agree in all that is said of the mighty progress which even already the human mind has made, we are sorry to observe that the source, the cause of all this wonderful improvement, does not seem to be as universally referred to as it ought to be. *Ante Agamemnona vivere fortes*; and the countless myriads of men who lived and died in the olden days ere knowledge was made accessible to the many, had minds even as our minds are. There is no alteration in the human mind, but there is vast alteration in the mode and degree in which that mind is cultivated. In vain would even the mighty press have toiled for man, had not a mightier engine by far previously prepared the way. And even at the risk of being thought old-fashioned and puritanical, we beg to confess that when we hear so much said about "the press," "the march of intellect," and "the spread of knowledge," we should like to hear their triumphs referred to that without which they had never been—the *march of Christianity*! But for the beneficent effects of Christianity, all the triumphs over which we so loudly rejoice would have remained unachieved; or they would have been, as in the old days of Heathenism, confined to the few, instead of becoming the heritage and the right of the many. It is, we most sincerely assure our readers in no pharisaical or even willing spirit that we make these observations—but every day more strongly convinces us of the danger of allowing error to

remain unnoticed, and it surely is a great, and it might quite possibly become even a fatal error, to leave out of consideration the great cause while lauding minor causes. The pride of human intellect, under proper restrictions, is among its most useful qualities; but without those restrictions it leads to an almost idolatrous self-esteem. Nothing can have a more salutary effect upon this erroneous feeling than the recollection of how much science, literature, and civilisation owe to Christianity.

THE FAKIRS OF INDIA.

SUCH a superstition as that of the Hindoos is extremely well calculated to produce impostors, and it is at once astonishing and painful to observe the great abundance of them in India. Under the names of Fakirs, Padins, Pandarens, &c. &c., swarms of lazy and artful villains impose upon their fellow-countrymen, and live in a state of luxury without ever thinking of performing even the light labour necessary in that delightful and wonderfully fertile land. However different in name, these vagabonds are all alike as to fraud and falsehood, and what we are about to say of the Fakirs will sufficiently serve to characterise the other mendacious and idle fraternities. To their real character of mendicants they add the pretended one of penitents, and each of them adopts such a sort of penance as he judges to be the best calculated to arrest public attention, and to excite public sympathy. Some affect to be so utterly abstracted in devout meditation, as not even to be aware that alms are bestowed upon them by the credulous and cheated bystanders; others lacerate their flesh in the most dreadful manner; some lie motionless in the open path during the very height and intensity of the sun's power; and others again cross their arms over their heads, or traverse the streets on their knees, instead of walking upright, and on their feet. Wherever there is any great assemblage of people, whether for religious or other purposes, there these creatures, nearly in a state of nudity, may be seen levying contributions, more especially addressing themselves to the compassionate feelings which distinguish females of all times and countries.

Notwithstanding the pretended devotion of the Fakirs to penance and self-mortification, they fare sumptuously every day at the expense of their dupes, and it does not appear that they are any more inveterately bent against amassing gold than against the enjoyment of good fare. An amusing anecdote is told on this point. Aurengzebe being assured that the Fakirs, notwithstanding their pretended destitution, were in possession of vast wealth in gold and precious stones, which they were accustomed to conceal in the folds of their ragged attire, invited a great number of them to a splendid repast. At the conclusion of this entertainment he ordered the attendants to bring in as many new dresses as there were Fakirs; and turning to these, he gravely told them that he held it to be highly improper that they who had so piously devoted themselves to religious duties should be destitute of the means of appearing decently clad, he begged that they would at once exchange their rags for the more suitable attire which was presented to them. It will easily be supposed that the Fakirs had small inclination to part with their ragged attire in so summary a manner, and then endeavoured to excuse themselves under the plea of their religious vows forbidding their compliance. But Aurengzebe was too well aware of the real cause of their reluctance to pay the least attention to their reiteration of the pretended one; they were compelled forthwith to strip, clothe themselves in the new

dresses, and go forth with heavy hearts, and fleeced of the fruits of long years of infamous hypocrisy and fraud. Our very belief is staggered when we learn that of these shameless impostors, who live by the grossest fraud, there are but few, if any, short of a million, and yet the native governments are so far from taking any measures for putting down the nuisance, that they in point of fact are even more than merely tolerant to it.

Praoun Poury and Perkhasanund were the two Fakirs whose lives seem to be the most deserving of mention. The first of these men chose to do penance by keeping his arms and hands continually crossed over the head, an attitude which experiment will prove to be exceedingly trying if long persisted in; and it is said that during forty years in which he annually travelled to the various religious festivals, he was never once known to remit this singular penance.

Perkhasanund chose a still more painful kind of penance. From the age of ten years he used himself to taking his repose upon beds of thorns, or flint stones, and at twenty he abandoned his home, and commenced a course of wandering. On arriving in Thibet, he determined to shut himself up in a cell for twelve years; but the door was broken open at the end of a year by the authorities. His penance having been thus unceremoniously broken in upon, he now procured a bedstead of which the bottom was thickly studded with iron spikes, and from that time forth he never lay except on that. As though this horrible couch were not sufficient to render him uncomfortable, he added to its disagreement by causing logs of wood to be constantly burned round him during the summer, while during the winter he was saturated with cold water, which kept constantly dripping upon his head from a hole purposely contrived above the bedstead.

However incredible it may appear that any human being could for a long series of years endure such mortifications as these, it is yet beyond all question that Perkhasanund did so for five and thirty years, and that at the end of that long period of self-torture he was in perfectly good health, and perfectly cheerful in mind; for the facts are vouched by Mr. Duncan, governor of Bombay, who had a long interview with this Fakir at Benares.

SUSPICION.

"Suspicion ever haunts the guilty mind," says Shakspeare; and it is one of the very many profound and valuable truths which that consummate master of human character frequently throws into a few simple words. But though profoundly true in the limited sense in which the proposition would be taken were the form of it reversed, that is to say, though it is unquestionably true that guilty minds are always suspicious, it does by no means follow, as ordinary readers of Shakspeare seem to suppose that it does, that only guilty minds are cursed with this torturing and almost incurable disease. On the contrary, the most perfectly virtuous may, by a long experience of the evil which human nature when perverted is capable of doing, and by a long course of suffering from, and under that evil, be rendered at length doubtful of the fairest seeming, and determinedly prejudiced against all mankind, believing all kindly professions to be mere hypocrisy, and the only honesty of mankind to consist in the open and brutal display of tyranny and love of injustice. It is to be hoped, indeed, that there are but few to whom this description will fully apply; but that it does apply to some who are in every thing, excepting their excessive suspicions, among the noblest and most estimable of mankind, we fear

there are but few widely extended circles which would not furnish living and suffering proofs.

But though we are far from supposing that all are bad who are suspicious, we are bound to admit that, however caused, suspicion is a feeling which tends to make its possessor very unamiable and all around him very miserable. So far, therefore, are we from being the apologists of this meanest and most cowardly of all the mere vices, that we most strongly recommend our readers to crush the very first symptom of acquiring the habit of suspicion. It is a habit, and it is an unreasoning habit too, and therefore only to be successfully

resisted at the first. Have you been injured? deceived? ungratefully treated by those whom you have zealously and kindly served, even to the serious detriment of your own interests? You have every right in the world to believe those who have thus ill-treated you to be persons of an exceedingly bad and dangerous disposition. But have you no contrasts to them within the circle of your acquaintance? Reflect rather upon those contrasts than upon the base and bad; for surely it is folly to make your whole life a long misery to yourself and others, by taking the minority, not for the exception, but—oh, monstrous!—for the rule!



THE JUNGFERN STEIG, OR MAIDEN'S WALK AT HAMBURGH.

THE above engraving represents the principal promenade in Hamburg, at which might be seen on a holiday all the beauty and fashion of that opulent city. This walk is situated at the head of the river Alster, and extends along its beautiful basin into the heart of the town. It is about one thousand feet in length, but only twenty or twenty-five feet broad, and is bordered with a row of lime-trees, and also a rail on the water side to secure its visitors from those involuntary immersions in the river to which carelessness, or too great indulgence in the use of the excellent wines, which in Hamburg are cheap and plentiful, might subject the inhabitants. At convenient intervals, stairs are placed in the *Jungfern Steig*, from which pleasure parties often embark

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in covered barges, fitted up with every necessary for the chief enjoyments of a German's life—namely, eating, drinking, and music. In these are placed tables well furnished with choice viands, wines, and other “creature comforts,” which are enjoyed, while bands of music heighten the zest for these delightful meals. Opposite the river is a handsome street with a row of fine houses.

We cannot lose the opportunity the present illustration affords of giving our readers a short sketch of the city whose principal feature is here represented. Being one of the three towns combined in the Hanseatic league, Hamburg presents many points of interest; a rapid detail of which may not be unacceptable.

Hamburg is one of the largest, richest, and most populous cities in Germany; a superiority which the title of "Queen of the Hanse towns," sometimes applied to it, fully implies. Its situation is pleasant and salubrious, on the banks of the river Elbe, in the circle of Lower Saxony, the duchy of Holstein, and province of Storman. In form this city is almost semicircular, and extends lengthwise nearly five miles.

Hamburg owes its origin, according to most historians, to Charlemagne, who raised a fortified town on its present site. It was afterwards made the seat of a bishopric, which has been transferred to Bremen. During the eleventh and twelfth centuries a great influx of wealth poured into Hamburg, from the extent of its fisheries and its fortunate geographical situation, which, being nearly central, commanded the *transit* trade not only of Germany, but of other nations. Important privileges were procured in 1269, when Hamburg acquired an undivided right both to make and execute its own laws. Among all the vicissitudes of commercial fluctuation in the middle ages, the "Queen of the Hanse towns" still preserved her superiority. The city had, however, frequently to contend for that independence she had nobly gained, and ever so well preserved, with the king of Denmark, as count of Holstein. At length a convention was framed in 1768, and confirmed by the emperor two years afterwards, in which the house of Holstein resigned its claims, and the independence of Hamburg was formally acknowledged. By an undeviating adherence to the just and rational principles of free trade, and the bravery and commercial integrity of its inhabitants, Hamburg up to that time preserved a degree of eminence and internal tranquillity rarely equalled in the annals of any other free state; but in 1803 the unfortunate part of its history approached. In that year the French, already in possession of Hanover, extorted from the city a loan of 1,700,000 marks. Such exactions were frequently repeated; until, in 1810, Hamburg was deprived of its independence and annexed to the French empire; and from that period to 1814, the rapacious avarice of the French robbed it of more than 11,200,000*l*. The peace of Paris restored independence to Hamburg in the same year, and was confirmed by the Congress of Vienna, which awarded a large sum as compensation for its losses.

Although the Hamburgers, especially the lower orders, retain much of that roughness and surliness which formerly distinguished them from the other Germans, their manners have nevertheless undergone much change within the last thirty years. The great number of emigrants from France and Hanover, during that period, amounting to 10,000, who found shelter in Hamburg, contributed to polish and refine the manners of its citizens. The merchants are in general great travellers, and bear the character of candid, well-informed persons; education is highly estimated and largely bestowed in families, and there are few ladies of the better class who cannot converse with some fluency in the French and English languages, besides speaking several of the German dialects. Hamburg is famous for its hospitality and good cheer. In truth, its character is rather too good on these accounts, for the stranger finds great difficulty in escaping from the long and frequent orgies, in a participation of which he is expected, nay almost obliged to share. Every luxury, foreign and continental, is easily procured, and it is generally acknowledged that there is no city in Europe, the markets of which are so constantly and abundantly supplied with an equal variety of game, fish, wine, and fruit.

The population of Hamburg is divided into three classes: those who have the full rights of citizenship; citizens of the

second class, (*Kleiné Burger*;) and sojourners, including strangers and Germans, and Polish Jews. Citizens of the first class are eligible to offices of honour and emolument, those of the second to minor municipal rights, and the sojourners pay one rix dollar to the state for its protection.

The government of Hamburg is purely democratic, the supreme power being divided between the senate and the common council. The senate is composed of four burgo-masters, and twenty-four councillors. None can hold office of any kind but those who profess the Lutheran creed.

The people of Hamburg have an excellent method of avoiding that bane of civilized society—litigation, which is prevented by resorting to arbitration. The party who thinks himself aggrieved has the liberty of applying to the senate for a commission, and of proposing two or three senators by name to inquire into the nature of the dispute, and accommodate matters in the most expeditious and fair manner within their power.

W.

THE BEE.

(Continued from p. 204.)

THE queen bee is said to give birth in a single summer to the amazing number of twenty thousand young ones, and on dissection, as many as five thousand eggs have been found in her body. When she has deposited a sufficient number of eggs in the cells, the care of hatching them devolves upon the working bees, who forego their usual employment, and devote themselves entirely to that important task. In a few days after the egg has been deposited in the cell, the embryo bee makes its appearance in the form of a small maggot, curled up in a round ring, and lying on a little mass of soft white jelly, upon which it instantly begins to feed; the working bees go from cell to cell supplying the young insects with this food, and tending them with the most assiduous care and affection. In about a week from the time of its emerging from the egg, the maggot, now grown to its full size, refuses to feed, and the attendants, instructed only by their marvellous instinct, close up the aperture of the cell, and leave the maggot to undergo its process of transformation secure from any molestation or injury from without.

As soon as the maggot finds itself fairly walled up in the cell, it begins to spin a silken web, similar to that spun by caterpillars. This done, it becomes changed into an aurelia, in which the legs and wings of the bee are visible. By the end of about three weeks from the time when the egg was deposited in the cell, the bee has become perfectly formed, pierces the waxen wall of its cell, and emerges. As soon as it appears, it is surrounded by the working bees, who feed and clean it with their trunks, and it speedily takes its part in the task of gathering honey from abroad, and of performing the various labours which are requisite at home. Directed by its truly beautiful instinct, the young insect flies forth in quest of honey-yielding flowers, and flies home again with unerring accuracy, no matter how long its excursion, to deposit its quota of both honey and wax in the general treasury.

The whole of the natural history of bees abounds with facts fitted to excite our admiration; but perhaps there is no other point more entirely wonderful than the architectural and mathematical skill displayed by them in the construction of their cells. Having great labour to perform, in order to obtain the great quantity of wax which is requisite, and

being at the same time much restricted for space, their cells are built precisely of that form which affords the greatest possible accommodation at the smallest possible expense of material! The great and patient naturalist, Reaumur, having judged this to be the case, applied to a celebrated mathematician—but without giving him any clue to the actual drift of the question—to know what hexagonal tube with pyramidal bases, composed of three similar and equal rhombs, can be constructed with the least quantity of material. The answer of the mathematician was, that the end would be best effected if three rhombs were so inclined to each other, that the great angles should measure $109^{\circ}, 26'$, and the lesser angles $70^{\circ}, 34'$; and an accurate admeasurement of the actual labour of the insect architect shows the great angles to be $109^{\circ}, 28'$, and the lesser ones $70^{\circ}, 32'$. And not only is the best kind of hexagon selected by these wonderful little creatures, but the hexagon is itself the best among forms for giving convenient room without excessive expenditure of material. Goldsmith says, upon this point, "It was said by Pappus, an eminent ancient geometrician, that of all figures, hexagons are the most convenient; for when placed touching each other, the most convenient room would be given, and the smallest loss. Now the cells of the bees are perfect hexagons, and they are double, closed at the bottom, but opening at the sides. The bottoms are composed of small triangular plates, which unite together and terminate in a point, and the aperture of each cell is guarded by a border, which renders the door somewhat less roomy than the interior, and at the same time acts as a buttress in giving strength to the whole. The art with which the cells are planned, scarcely exceeds the labour with which they are executed. Their tools are their teeth, with which they shape, cut, and polish their work with a persevering industry, of which only regular and careful observation of the little labourers can give the young reader any thing like an adequate idea."

We have already stated that the queen bee is exceedingly prolific, and as so short a space of time suffices her to make so vast an addition to the number of living inhabitants of the hive, the death of a vast number of them—either by inanition or actual violence—would be quite inevitable, but for the interesting phenomenon called "swarming." This emigration of the superfluous population of the hive we shall now explain.

Until the ingenious Mr. Nutt, one of the ablest bee masters in England, or probably, in the whole world, invented a means of extending the hives, the prodigious increase of numbers naturally and necessarily caused much inconvenience; and accordingly, in all common hives there is observed very considerable agitation in the spring of the year, and it is periodically renewed during the whole of the summer. Thick clusters of bees may be observed on the front of the hive, and at length, a queen bee sallies forth, followed by seven or eight thousand subjects. For many years it was thought that the "swarm" was uniformly headed by a young queen bee, but the observations of Reaumur, and other eminent naturalists, have established the fact that it is the old queen bee, who is the bitter enemy of her daughter, and who thus resigns her sovereignty, and sets out in quest of a new abode. Previous to leaving the hive, the old queen and her followers supply themselves with a sufficiency of honey to subsist upon for several days, and then hover for a few minutes around their abode, as though reluctantly bidding farewell to a home dear to them so long, and no more to be revisited. At starting, they generally make their way to a considerable height in the air before they commence their onward course;

sometimes, though not frequently, they descend again at a very short distance from their late home; but generally, they fly to a very considerable distance before they choose a spot to settle upon. Country people commonly endeavour to arrest the progress of the swarm, by beating tin pans; the *rationale* of which is explained by naturalists to be, that the din thus created, drowns the directing hum of the leading bee. If the owner can thus detain the bees, he has little difficulty in sweeping them from the place at which they alight into a new hive, provided with a small portion of honey; but if they be left to take their own course, they generally take refuge in a hollow tree, and if the aperture be too large to suit them, stop up a portion of it with a plate of honeycomb. As many as half a dozen swarms have been known to depart from a single populous hive in the course of a month of warm weather.

Though the industry and the wonderful skill of the bee have been much and duly eulogised, and though both sacred and profane writers have justly held up these qualities of the insect to the admiration and imitation of mankind, we are sorry to confess that the bee has certain other qualities which mankind cannot too entirely detest, or too sedulously shun. It is by no means an uncommon occurrence for one bee wantonly, and without the least apparent provocation, to commence a violent attack upon another; and so furious are the encounters thus produced, that, well as their bodies are secured against any trifling injury, one of the spiteful little combatants almost invariably loses its life. Its honesty, too, is as deficient as its love of peace; for it not unfrequently happens that a party will sally from the hive, and instead of seeking honey in the legitimate way, of extracting it from flowers, fall suddenly upon a sweet-laden humble bee, violently assault him, and forcibly deprive him of the fruits of his arduous and diligent labour.

Idleness, however, the bee holds in utter detestation; "*Qui non laborat non manducet*,"* the motto of the brilliant Philip de Comines, appears to be their settled and governing maxim. The drones, for instance, are born in April or May, and during the whole of the summer they live in idle luxury, the working bees being during that period such an abundance of honey, as to render its consumption by the idlers a matter of comparatively small consequence; but in the autumn, when the flowers are nearly all dead, the drones are sternly and unsparingly put to death.

The bee-master should be particularly careful to prevent any corrupting substance, or other cause of foul smells to lie near his hives, for the bees are perfect patterns of cleanliness, and nothing tends more to their injury than the sort of nuisance to which we have alluded.

Producing as bees do such stores of delicious sweet, they are, of course, exposed to the furtive propensities of various sweet-loving insects. Against most of these, however, they are extremely well able to protect themselves, and numerous amusing anecdotes are related of the mode in which they contrive to do so. Reaumur, for instance, tells us that he saw a snail enter a hive, and fix itself upon the glass. The bees finding that the shell of the intruder was far too solid a substance to admit of their putting him to death with their stings, quietly proceeded to cement him to the glass with wax, which they economically applied to the edge, and only to the edge, of his shell, thus very effectually preventing him from ever moving from the spot he had so injudiciously fixed upon for his resting-place!

* "He who will not labour, neither shall he eat."

No. VI.—SELF-INSTRUCTOR IN BIOGRAPHY.

FREDERIC THE GREAT.



[Frederic the Great.]

THIS able and celebrated prince was the son of Frederic William I. King of Prussia, and was born on the 24th of January, 1712. At a very early age he manifested a strong inclination for literature and the fine arts; poetry and music he was particularly addicted to, and in the composition of the former he was unusually precocious. His royal father looked with any thing but a pleased eye upon his studious turn, and was so much alarmed lest the heir to the crown should become a mere student instead of a warrior and a statesman, that he placed him under the severest surveillance, and deprived him of all means of prosecuting his favourite pursuits. For some time the young prince submitted unresistingly; but on attaining his eighteenth year he resolved to escape from those who were appointed to watch over his course. He accordingly took into his confidence a young and gallant officer named Kat, who made all the necessary preparations. The evening fixed for their departure arrived without any thing occurring to alarm them as to the success of their schemes; but it was perfectly well known in all its circumstances: they were suddenly seized by a party of the king's guards, the prince was thrown into prison, and his faithful, but ill-fated friend was savagely executed—we had almost said assassinated—before his eyes. Justifiable as was the anxiety of the king so to educate his son as should best consort with the greatness and safety of the kingdom, it is impossible not to look upon the execution of Kat as an act of arbitrary and disgraceful tyranny. After confinement and severity had been used as long as the king thought them

advisable, the prince was liberated; and his marriage with the princess of Brunswick Wolfenbuttel restored that harmony between the royal father and son which, except by some very grievous want of sense and temper on either one side or the other, could never have been disturbed.

In 1740 our subject succeeded to the throne, and he had scarcely done so ere he began to afford proof that his sire need have had small fear of the warrior and the statesman being lost in the poet and musician. He had been but a few months in possession of his throne when the Emperor Charles VI. died, and Frederic immediately demanded from the emperor's heiress, Maria Theresa, the cession of Silesia. His claim was resisted, but he took up arms, forced Lower Silesia to submit to him, and obtained the aid of France for the further prosecution of his designs. Farther bloodshed, however, was for the present prevented, by a treaty signed at Breslau, by which he was put in possession of Silesia and Glatz.

It is not easy to say whether he really suspected the existence of a design to violate this treaty, or merely feigned that suspicion as a pretext for again commencing hostilities. The history of every state furnishes us with but too many cases to render the former quite possible, and to render it equally possible that his suspicions were founded upon at least seemingly good and sufficient reasons; while the whole subsequent career of the king was such as to warrant a strong suspicion of the latter. From whatever motives he, in 1744, declared his intention of supporting by force of arms the election of the Emperor Charles VII., whom Maria Theresa had refused to acknowledge, the war, vigorously prosecuted on both sides, was, on the whole, most favourable to Frederic, until just towards its close, when he consented to acknowledge Francis I. of Lorraine as emperor, the court of Vienna leaving the King of Prussia in possession of Glatz, and of the chief portion of Silesia.

For some time he chiefly devoted himself to those studies in which he found delight and consolation even in his dungeon, but in 1755 he was once more called from "learned ease" to the "tented field." England and France having quarrelled about their transatlantic territories, Austria took part with France, and Prussia with England. Great umbrage was taken by several continental powers, and by 1757 the King of Prussia found that he had to contend at once against Russia, the German empire, Austria, Sweden, Saxony, and France. Such a combination would have crushed almost any other monarch, but it merely afforded Frederic an opportunity of showing that the greatness of the force that could be brought against him merely served to furnish an opportunity to him of displaying the extent and versatility of his genius. His troops, admirably disciplined by himself, and upon a new system, only met with repulses in one quarter to avenge them by infinitely more important triumphs in another; and his combined enemies, after a prodigious sacrifice of blood and treasure, were glad to conclude peace with him in 1763; Silesia being once again confirmed to him.

As a disciplinarian, Frederic was wisely rigorous; as a general, he was singularly sagacious in seeing the errors of an opponent, and prompt and audacious in availing himself of them. Soldiers he seemed to consider mere machines; and to the implicit obedience and unvarying punctuality

which he exacted from them, he no doubt owed much of the success which attended efforts which an equally courageous but less perfectly disciplined army could only have attempted to its own utter ruin.

In his regulations as in his dress he was completely the soldier, rising regularly at the same hour every morning, and retiring nightly at the same hour; devoting to each pursuit its especial period of the day. He dined regularly at noon, and two hours later retired to his study, where he read or wrote until seven in the evening, at which hour a concert commenced, in which Frederic took his part on the flute, which he is said to have played with the taste and skill of a first-rate professor.

His gigantic regiment of grenadiers, of which he was particularly proud, was reviewed by himself at eleven o'clock every morning; and the colonel of each regiment in his dominions was expected to be similarly employed at precisely the same hour. On one occasion Frederic accosted a smart but exceedingly foppish grenadier, of whose vanity he had heard, and desired him to tell the hour. The poor fellow, who had an extremely smart looking watch-chain dangling from his fob, hesitated for a moment, and then drawing forth, not a watch, but a bullet, said, "My watch does not tell the time of day, but merely reminds me that I am to be ready at any hour to die for your majesty." Pleased with the ready reply, and the manner of the brave though vain soldier, the king presented him on the spot with his own valuable repeater.

Though this anecdote, and the magnanimous contempt with which he treated the libellous attacks made upon him by ill-affected writers, bespeak considerable moral greatness, we must not omit to say that the king's humour was exceedingly capricious; he could do very generous things on impulse—but on opposite impulses he could be guilty of gross acts of despotism and cruelty, very unworthy of the literary and philosophical character he was so proud of.

As an author he was industrious, and had considerable genius; in which latter respect, however, he has been very grossly overrated in consequence of his intimacy with Voltaire, and others of the French literati. The correspondence between them is full of proofs of the utter hollowness of many of the professions which men so speciously and so warmly make. The enemies of all authority in France were not ashamed to pay the most fulsome adulation to the always absolute, and not unfrequently cruel and unjust despot of Prussia; and he, exacting the most implicit and servile obedience to his merely human and fallible authority, thought it manly and great to ridicule religion, and adopt at second-hand the flippant impieties and impertinences of the Deists and Atheists! The *Memoirs of his own Times*, *History of the Seven Years' War*, *Memoirs of the House of Brandenburg*, and *Frédérician Code*, are honourable to both his talents and his industry, but are by no means sufficiently great productions to warrant the proud praise bestowed upon the royal author by Voltaire, Condorcet, and others of the same school.

Viewed simply as a military chieftain, Frederic, undoubtedly, deserved the surname of 'Great.' But the motives of his wars are far more questionable than the talent and courage with which he prosecuted them; and his morality seems to have been not too strictly cared for, when he consented, in the year 1772, to join with his old enemies, Austria and Russia, in partitioning the territories of unfortunate Poland.

After the conclusion of the war, he devoted himself to the noble task of improving the commerce, intellect, and morals of his people. The arts were cultivated, and good laws

promulgated; and though his stern ambition would not let him part with an atom of his despotic power, the last years of his reign were so employed as to render his despotism far more truly valuable to his people than many a nominally republican but really factious government of either ancient or modern times could have been. His great activity and excellent constitution enabled him without injury to endure fatigues which would have utterly ruined a weaker constitution; and when he died, in 1786, he was in the 75th year of his age.

ON THE POWER OF PERSEVERANCE.

LESS perhaps from actual want of will than from steady and sustained perseverance, many persons, otherwise well fitted to serve society, and at the same time, and to the same extent, also to benefit themselves, pass through life achieving nothing towards the former, and scarcely a tithe of what they might towards the latter. What renders this the more lamentable is, that such persons usually charge their ill success to any cause rather than to the true one. Fate, Fortune, Society, Luck—these are the evil influences to which such unhappy persons may be heard to attribute the effects which really are produced solely by their own want of perseverance and energy. And yet what mighty benefits have been conferred upon society by men of energy, whose circumstances were those of absolute destitution, when compared to the advantages which your mere grumblers declare it to be so utterly and obviously impossible to turn to any good account. We do not now speak of the triumphs of genius in the fine arts or in literature; in pure science, or in the inventions which add to the wealth of nations; we speak of men who have passed their whole lives in humble stations, and in the receipt of exceedingly small stipends, but who, by untiring and gigantic perseverance, made their whole lives a benefit to mankind, and left at their deaths a steady and noble fame, which mankind will not readily let die. The examples afforded by the career of such men are no less valuable than were their exertions; and we think none of our readers will deem that we misappropriate the brief space we intend to devote to speaking of two christian pastors, who *defied* penury to prevent them from being useful to mankind in a secular as well as in a spiritual sense. The Rev. Robert Walker, whose history is briefly, but with most graphic and touching eloquence, given by the great poet Wordsworth, was born in the parish of Seathwaite, in Cumberland, in the year 1707. His parents were as far as possible from being wealthy, but his delicate constitution induced them to make both exertion and sacrifice in order to obtain him such an education as would exempt him from the hard labour for which his frail frame promised so little fitness. He accordingly received a sound English education from the clergyman of the parish, and subsequently added to it a considerable acquaintance with the classics.

Thus qualified, he took holy orders, and when about twenty-seven years of age was appointed to succeed his old schoolmaster in the curacy of his native parish. At this time the stipend attached to this humble and secluded cure was no more than five pounds per annum; and though it was subsequently twice or thrice augmented, it is certain that it never exceeded twenty-five pounds.

What he *naïvely* calls the "fortune" which he received with his wife was not very greatly calculated to give him the means of accumulating, for it amounted only to the sum of

forty pounds. A pleasant prospect would the sum of forty pounds, backed by a stipend for many years of only five pounds, and never more than twenty-five, have afforded to one of your discontented and yet indolent gentry, who put their hands in their pockets, scowl askance upon the stirring and the prosperous, and then take heaven and earth to witness that they are exceedingly neglected and injured individuals! But Walker had nothing in common with such wrong-headed individuals, save the unfavourable aspect of the circumstances under which he made his entry into public life. He not only succeeded his old schoolmaster in the spiritual cure of the parish, but he also, like him, took upon himself the secular duty of a village schoolmaster. Let not the reader, however, suppose that this latter occupation very materially increased the pittance afforded by the former. Nearly all of his scholars were too poor to pay him any thing; and even those who could make him any acknowledgment, could only do so by occasional small presents, which, from the poverty of the district, were no doubt chiefly made in agricultural produce.

As schoolmaster, he was engaged eight hours daily during the week, except on Saturday, when the afternoon was a holiday to his scholars, though none to him, for that was the only time he could devote to study. Like the village dame in Shenstone's admirable poem, he turned a spinning-wheel while teaching his scholars, and by this labour provided materials for the clothing of his family, every article of which was subsequently made up by their own skill and industry. His glebe land consisted of about half an acre, and this, with a small tract which he rented, he cultivated for himself, besides looking after a few sheep and a cow or two, for which he had a right of pasturage on the mountains. Would not any one suppose that the secular labours we have enumerated, added to the faithful and zealous performance of his clerical duties—and in this respect he was perfectly exemplary—would have proved somewhat more than enough for the strongest of men? But all this was only a part of Walker's labour! No matter how secluded a part of England men may inhabit, they must have dealings more or less extensive; and agreements, receipts, account keeping, conveyances, and wills must be written even where the neighbourhood is not fortunate enough to have an honest lawyer, or unfortunate enough to have one of the opposite description. Born among his little flock, and noted from his youth upward for his integrity, industry, and knowledge of business, as well as for the "scholarship" which in so rude and simple a neighbourhood, might well seem little less than miraculous, Walker was resorted to by his parishioners, and by the neighbouring peasantry, to whom the information of the former had made his fame known, whensoever clerical skill was required. Acting by turns as conveyancer, accountant, and arbitrator; to-day executing a lease, to-morrow a will; now employed to frame a petition descriptive of the sufferings and wants of some luckless cottage farmer, and anon wading through the almost unintelligible accounts of disputing parties, each claiming from the other certain pounds sterling in balance of a running account; our good pastor had in this simple way more business upon his head and hands than many a village lawyer, who has only such matters to attend to. At Christmas time, more especially, this sort of occupation pressed so heavily on his hands, as to compel him to break through his ordinary habits, and devote most of the night hours to it.

Even here his labours did not end. He not only tilled his own glebe and the little land he rented, but at hay-making and sheep-shearing he was ever foremost in aiding his neighbours in their toil. The prodigious amount of

labour thus performed not only tended to increase his actual pecuniary receipts, but also to furnish him at comparatively small cost with all the chief necessities of life. But allowing all this, how ought some people to blush to confess themselves unable to live upon an infinitely larger income than his, when they learn that, though he had to maintain and respectably educate nine children, this truly "respectable" man left to his family at his death above two thousand pounds in hard cash, besides considerable agricultural stock!

If there were any room for conjecture upon the subject, the ill-natured—and unfortunately they are only too large a portion of the world—might charitably suggest, that with such means as he possessed, Walker could only accumulate such a sum by habits the most miserly and miserable. On the contrary, his family had abundance of all the necessities of life; "the poor and the hungry," as Wordsworth touchingly says, he never sent empty away; the stranger was fed and refreshed, and the sick of his own parish were visited and aided; and the same excellent writer adds, that his hospitality was at all times hearty and without stint.

The explanation of this seeming mystery is exceedingly simple. Not only was he industrious in producing the necessities of life from his land, but he wisely and honourably denied himself all luxuries, which could only have been procured for money and from a distance. Even tea was never used in his family until both he and his wife were considerably advanced in years; and even then they never partook of it, but kept it in the house solely for the use of their children, when they occasionally visited them; habit having rendered it necessary to these latter, the former cheerfully supplied for their comfort an expensive luxury, which on principle they had so entirely abstained from themselves.

In every point of view Walker was an admirable and a valuable man. His services, both spiritual and secular, were very great in the humble district in which it pleased Providence to cast his lot. He was laborious, self-denying, and frugal; but his labour did not prevent him from being a good scholar, and an eloquent as well as pious preacher; his self-denial abated no jot or tittle of his pity for the suffering and the needy; and frugal as were his own habits, his doors were hospitably open, and his table plentifully though plainly covered for the humblest of his humble parishioners. In the district, which for upwards of sixty years witnessed and was benefited by his absolutely gigantic exertions, he is spoken of to this hour by the truly complimentary title of "Wonderful Walker."

(To be concluded in our next.)

GREAT EARTHQUAKE OF LISBON.

In our happy climate we can form but a very indistinct and inadequate notion of the terrors of a violent earthquake. In many foreign countries, and in some at no great distance from our own shores, all the beauty and the fertility which nature can lavish upon her most favoured scenes are frequently embittered, and the choicest productions of man's ingenuity and industry destroyed by this terrible and irresistible effort of struggling nature.

History unhappily furnishes but too abundant instances of human suffering, from causes which put human resistance wholly out of the question. Our own magnificent metropolis has been desolated so completely by the fell and irresistible pestilence, that the dead were thrown by hundreds into pits, without passing-bell or prayer; and where commerce was once busy, and pleasure beamed in the eyes of glad thousands, the grass grew in the untrodden streets, and

if man did chance to meet his fellow man, each shrank from each as either would from the unveiled obscenities of the flesh-worm and the charnel-house. Fire, too, that proverbially "good servant but bad master," has spread dismay and desolation in our now noble and prosperous city; and where warehouses, abounding in the natural and artificial productions of every quarter of the globe, and residences furnished with all that reasonable taste can require, or reasonable expenditure can procure, rise in proud rows before the eyes of the spectator, there were, but two centuries before, thousands of houseless creatures encamped amid the wrecks and the smouldering ruins of the homes which a single stroke had desolated and destroyed.

Terrible as was each of these visitations—and, as we have already taken occasion to remark, history furnishes but too great an abundance of similar cases—we doubt if, taking all circumstances into consideration, modern annals can furnish a more horrible narrative than that of the earthquake at Lisbon in the year 1755.

On the first day of November, in the year in question, the morning broke clear and cloudless, and any one who had pointed to that calm and beautiful sky, and prognosticated the ruin that was sullenly and silently brooding over the devoted city, would have been very heartily, and, to all appearance, very justly laughed at for his pains.

Between nine and ten o'clock in the morning the aspect of the heavens was suddenly and ominously changed. A lurid and fiery gloom in an instant succeeded to the previous beauty and brightness—not a breath of air was to be felt; and after a few moments of that impressive stillness of animate and inanimate nature, which frequently occurs at the moment when the fierce lightnings are about to dart from the bosom of the lowering storm-cloud, every house in the city shook from foundation-stone to roof-tree, and on all sides there arose from the earth a hollow and prolonged murmur, like the muttered anger of the distant thunder. Scarcely had the terrified citizens time to utter, with pale lips and tremulous tones, their apprehensions of a coming earthquake, ere there came a second and infinitely more violent shock, which not only shook every building, but actually threw down the upper stories of the more lofty ones. Amid the crash of falling masonry, and in a darkness preternaturally and dreadfully deep, the unhappy citizens rushed forth from their insecure dwellings, in the most solid of which huge rents attested the terrible strength of the second shock. From all parts, individuals who had been absent from their homes might be seen running in wild dismay, shrieking the names of parents, wives, and children, and stopping every flying passenger to put questions, which terror made inarticulate or unintelligible. In the whole city not a creature remained within doors after the second shock, save those whom age or disease disqualified for motion; and to these unhappy persons, the trembling of their walls, and the displacing of every article of furniture or ornament, held out perpetual threats of sudden and violent death. When the gloom cleared away from the sky, and the vast clouds of dust, caused by the falling of so many masses of building had partially disappeared, the city presented a truly awful appearance. Mothers, faithful, even with death in their sight, to the finest and most fervent of all the feelings of our beautiful though but too frequently perverted nature, might be seen clasping unconscious and half-naked children, and looking upward with the wan and hopeless aspect of the fabled Niobe, when the last lamb of her flock had fallen beneath the pitiless deftness of the immortal and inexorable archer.

Churches and noble mansions, as well as the meanest

huts, lay around in one common ruin; women of every rank might be seen wringing their hands and tearing their dishevelled hair, and ever and anon a long and solemn train of ecclesiastics passed along, lifting the host, and offering up their fervent prayers to heaven, to stay the farther progress of the destroying angel. Some of the more enthusiastic of the sacerdotal groups lifted up their voices, even amid this horrible and threatening scene, reproaching the people with their past sins, and exhorting them to instant and fervent repentance. The most abandoned among the laity shared, for the time at least, the pious enthusiasm of the priesthood; and men whose whole lives had been spent in contravention of the laws of religion, and whose religious feelings had never until now been manifested otherwise than in merely external and mechanical observances, were now seen to grasp with rapture the wooden crosses which were passed in great numbers from group to group, and heard to address the most passionate and eloquent supplications to that Eternal One, whose behests they had perpetually defied, and whose mercy they had as perpetually mocked—until now.

It may be presumed, indeed, that there was only too much of idolatry in the feeling with which these unfortunate people embraced the proffered crosses; but, however lamentable the ignorance of so vast a population may be, there can be but little doubt that with their idolatry there was commingled no small portion of real repentance as to the past, and of sincere virtuous resolution as to the future.

A new shock came on, and the *Miserecordias* of the terrified and helpless multitude were redoubled; women fainted, and—

"Shrieked the timid, and stood still the brave."

At this awful moment a new cause of alarm made its appearance. Hitherto the terrible throes of the labouring earth, the crash of falling buildings, and the piercing cries of women who had already lost their little ones, or who momentarily expected to lose them, had composed an amount of horror such as it rarely chances to man to either witness or survive. But now, on all sides, and in all tones, arose the wild and terrible cry, "The sea! The sea! Behold the sea is coming in upon us!" and ere the cry had died away from the pale, parched lips of the agonised multitude, the Tagus rose in a mighty and troubled mass, its waves heaving hither and thither like unto the storm-lashed billows of the ocean. Vessels, driven without an instant's notice for preparation, dashed madly and fatally against each other, some sinking suddenly and for ever into the insatiate abyss of waters; and others dashing upon the shore, and strewing it with costly merchandise, and, alas! with the corpses of many a goodly and gallant seaman.

Paralysed with excessive fright, the majority of the citizens gazed each in the attitude in which the cry of terror and of warning had reached him; and on, on, on! came the sublime—but oh! how threatening—mass of waters! Resist that silent but stern and impetuous inbreak? Away, away! Fly, for life and limb! And they whom terror had not utterly deprived of the power of locomotion, did fly; even as men fly whose track is pursued by the avengers of blood unjustly and tyrannously shed. They who stood still in the stupor of an intense and excessive awe were swallowed up on the instant; and they who could flee from the terrible waters, fled right onward—the dearest connexions being for the moment forgotten in the instinctive love of life.

There was at this time a massive and magnificent quay which, at an enormous expense, had been constructed

entirely of marble, and to this seemingly invulnerable seawall hundreds of terrified people made their way, deeming that there, at least, the waters would be checked in their mad course. Alas! the pier and its tenants were alike engulfed by one mountainous mass of water, and the rush of the immense fabric caused a tremendous whirlpool, by which several series of small craft, together with their crews, were engorged, as though by a wild beast made fierce by torture.

CAVERN OF THE GUARACHARO.

In the northern part of Caraccas, in South America, there is an extremely singular cave, to which the above name is given, on account of its situation at the foot of the lofty mountain Guaracharo, the natives sometimes also speaking of it as the "Mine of Fat."

Approaching it by a winding path, on arriving at about four hundred paces from the foot of the mountain, you suddenly find yourself in front of the immense opening of this extremely curious cavern, which is about seventy feet high by thirty feet wide! The stalactites within the cavern present the usual combinations of forms, that might seem moulded by, and modelled from the architectural art of man. In this respect, however, the cavern is neither inferior nor superior to that of caverns in general; but it is singular, on account of being beautifully decorated for forty or fifty paces from the aperture, with flowers and shrubs of every scent and hue, though neither rain nor sun can by any possibility aid in their growth or nurture.

The name which the natives give to this cave has its origin in the fact, that the interior parts thereof are inhabited by myriads of birds, of about the size and weight of

the domestic fowl. The birds in question have a bluish plumage, checkered occasionally with black, and they go abroad only in the dusk of the evening. Once in every year the natives enter the cave, knock down the nests of the birds with long poles, and kill the young ones by thousands. This they do for the sake of an oily fat, called the oil of the Guacheroo.

The exact length of this cave is not known, for the natives are extremely superstitious, and will not go beyond a certain point, although the darkness is dispelled by the numerous torches which they carry; one traveller, however, who induced his guides to venture two thousand five hundred feet from the aperture, found that it stretched considerably further.

VERY SATIRICAL.—Nothing is more common than to hear persons of good sense and good feeling speak of others as being "very satirical," not by way of deprecation or censure, but positively as though this most dangerous of all talents, satire, were not almost invariably the offspring of a bad head, and the pest of all to whom its possessor has access. Your "very satirical" man or woman is a perfect ambulatory pest; who will spare the feelings of no age and of neither sex, if any thing in the way of ignorant laughter can possibly be elicited by the brutal ill-nature which weak people are silly enough to call by the too mild term of "satire."

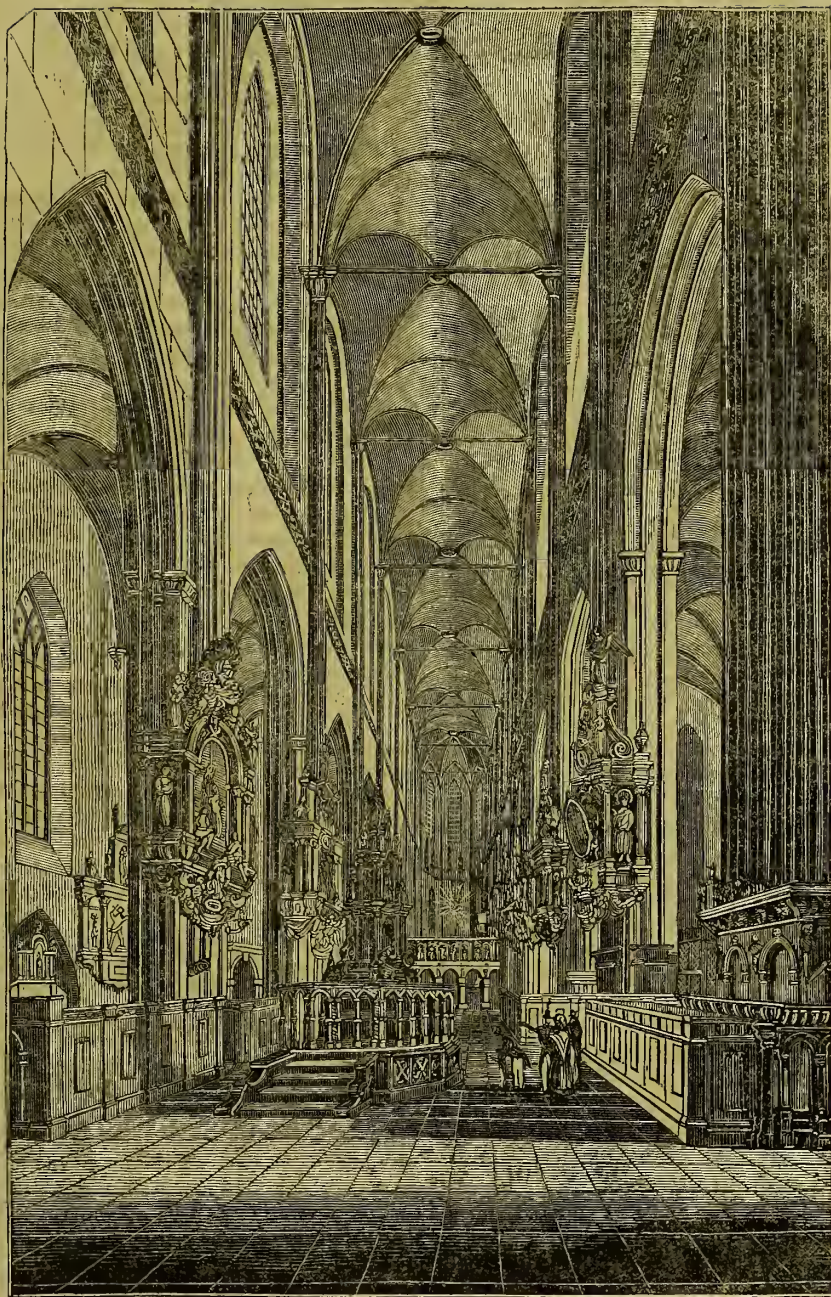
High spirits, and the thoughtlessness of youth, will sometimes originate the bad habit of being "very satirical;" but it is a bad habit, and is sure to create bad feeling, when long indulged; so that what began in mere folly, at length proceeds from actual wickedness. Youth, therefore, cannot be too careful to check the very first impulse to so dangerous a habit.

NO. IV.—SELF-INSTRUCTOR IN MORALITY.

ON THE IMPORTANCE OF CHARACTER.

YOUTH cannot be too fully impressed with the knowledge of the exceeding importance and value of a good character; nor can they be rendered too early anxious so to conduct themselves, as to secure that actually invaluable treasure. No other loss is at all comparable to that of character; loss of fortune may be remedied by exertion and skill, nay even some portion of time lost may be in a degree compensated for by a stern determination to snatch from our meals and our repose a portion equivalent to it. But character once lost is as irrecoverable as a spoken word or a forgotten dream. We may cease to be guilty of the vice or the folly which has inflicted this terrible loss upon us, but we might as well hope to replace the delicate bloom which we have brushed from the peach as to enjoy again that intact respect and confidence which we have once been unhappy and unwise enough to forfeit. The wise and the good will wish us well, nay they will try to prophesy well your future course—but they dare not, they cannot depend upon us for well doing. And here is the grand evil of loss of character, that it is its very essence to render confidence in us for the future wholly impossible. Our faults and follies may be forgiven, but they cannot be forgotten. Any one has it in his power to set limits to his own active resentment, but where is the monarch so potent that he can say to busy memory, "Be thou still?" No, the weird furies pursuing sad Orestes, are only a type of the inexorable constancy with which an evil reputation adheres to whomsoever is so unfortunate as to incur that terrible evil.

Lost reputation being thus utterly irrecoverable, we repeat that youth cannot be too strongly impressed with the vast importance of early and regular care of it. They should consider that any vice or folly may become a habit, and that the aggregate of their habits will determine the estimation in which mankind will hold them. Now that estimation will be fixed and permanent, whether the aggregate of habits be life-long or not; and what a horrible reflection must it be to feel, "I may become virtuous, but my fellow-men will always shun or distrust me as though I still were vicious!" And yet, however terrible this may seem, it is in fact inevitable; the liar never will be believed, nor the thief trusted, however conscientiously the former may speak, or with however honest intentions the latter may enter his neighbour's house. Beware, then, O youth! to guard well and vigilantly your invaluable reputation. Not a year will pass over your head after you arrive at manhood without your having practical proof that with a good reputation no man living in civilized society can be wholly helpless or unhappy; while with a bad one, no worldly advantages can prevent him from being looked upon with fear and suspicion. Destitute of the confidence of his fellow-men in his manhood, he will be equally destitute of their sympathy and respect when he becomes aged; and he will die at last with the melancholy conviction that his manhood has been deprived of its usefulness, and his old age of its honour, because in his youth he idly flung away what Shakspeare well and truly calls, "The immediate jewel of the soul"—Reputation.



INTERIOR OF ST. MARY'S CHURCH AT LUBECK.

WE are chiefly indebted for the following account of this interesting structure,—an interior view of which is represented in our engraving,—to Dr. Nugent's "Travels through Germany;" and although the work was printed so long ago as 1768, yet, in all the more recently published books of travel we happen to have perused, a more full and minute account of this renowned building is not to be met with.

The church of St. Mary is a noble, lofty pile, far exceeding any other structure in Lubeck. It stands near the great market-place and the town-house, in the heart of the city. The steeple is the highest in all the town, and is divided

into two spires; that on the north is two hundred and seventeen yards high, and was built in 1310, the ascent of which is by as many steps as there are days in the year: it commands a fine view of the town and country. The entrance of the church is supported by two pillars of granite, each of one entire piece. The inside is richly ornamented with pictures, and with the tombs of senators and other eminent persons. These ornaments, however, appear too much crowded, and the eye is offended at seeing them scattered about in such profusion, without any regular order. Every hole and corner is filled with a long inscription, containing the character of some senator or priest, whose

memory, perhaps, ought to have been consigned to oblivion. The high altar is remarkable for the beauty of its workmanship as well as for the richness of its materials, being of the finest black and white marble. It was made by the famous Quellinus of Antwerp, in 1697, at the expense of one of the burgomasters.

Not far from the high altar is the celebrated astronomical clock, which, besides its largeness and the multiplicity of its appurtenances and ornaments, is indeed an admirable piece of mechanism. On it are seen the ecliptic, zodiac, equator, and tropics, and, what is astonishing, the planets in all their several courses; so that the station of any of them is to be found at every hour of the day, whether they be above or below the horizon, or to the southward, or eastward, or westward, with many other astronomical particulars. In a word, from this curious machine may be formed a complete almanac, showing the daily dispositions and variations of the celestial bodies; sun-rising and setting, the eclipses, festivals and remarkable days, for the meridian of Lubeck; and this in any year, even the leap years, down to 1875, which will be the year of consummation to all these laborious displays of astronomical knowledge. There are, likewise, several ingenious automata, particularly an image of our Saviour, and on its right hand a door, which opening as the clock strikes twelve at noon, forth come, in order of procession, effigies of the emperor and the seven eldest electors, who, turning to the image, make a profound obeisance; this he returns with a kind of motion of his hand, then the august group retreat in the same order through a door on the left, and both doors immediately shut. In a tower above this clock is another master-piece—the chimes; they play every hour with a justness, celerity, and melody, which charm the most delicate ear. Under these chimes is the bell for striking the hour, which is performed by an image of Time, whilst a lesser figure, representing Mortality, and standing on the other side of the bell, turns aside its head at every stroke. That this work may not be damaged by any indiscreet spectator, it is framed all over with wire at the distance of an arm's length. An inscription on the left shows the original date of this work to be the year 1405, though it has since undergone two repairs; but the artist's name has long been buried in oblivion. In the inscription on the right are set forth its excellencies.

But the most noted thing in St. Mary's church is the painting called "*Death's Dance*," by Holbein, so much talked of in all parts of Germany. It was originally drawn in 1463, but the figures were repaired at different times, as in 1588 and 1642, and last of all in 1701. Here you see the representation of death leading an emperor in his imperial robes, who, with his other hand, takes hold of such another figure, which leads up a king; and so alternately a figure of Death and a human person, throughout all conditions and stages of life. The intention of the artist was to show that Death pays no regard to age or condition, which is more particularly expressed in the verses underneath. They were composed at first in *Plat Deutch*, or Low Dutch; but at the last repair in 1701, it was thought proper to change them for German verses, which were written by Nathaniel Schlott of Dantzick. The whole of this poem was translated into English by a young lady of Lubeck; it is very long, several lines being appropriated to each character in the Dance: we subjoin a verse or two as specimens of the whole. The Pope replies, in answer to Death's summons:

"Talk so to me, I greatly wonder,
You think so little of my thunder.

Can't holy water, holy tapers,
Stand me in stead against thy vapours,
Me, who have power to release,
Or bind those sinners whom I please?
'Twere passing strange were I to die,
Without the keys of heaven, not I."

The answer of the peasant, though a great contrast to the above, is equally characteristic:

"Yes, Death, to thee I made my moan,
To you, kind Sir, and you alone;
With labour hard and sweat of brow,
I earn the bread I live on now.
To-day I little thought to see
A friend to ease me kind as thee,
Then take me, Sir, without control,
And Lord have mercy on my soul."

The last figure in this extraordinary dance is that of a fencing-master. His speech is laconic enough:

"O all is o'er, I've lost my breath,
But who the de'il can fence with Death?"

As regards the political and general state of Lubeck, little need be stated, as the information contained in our articles on Bremen and Hamburg will apply pretty nearly to Lubeck, it being one of the four free towns of the Germanic Confederation, subject to the same laws, and adopting the same system of legislation, with some few exceptions, as the before-named cities.

W.

THE POWER OF PERSEVERANCE.

(Concluded from p. 214.)

ANOTHER fine instance of the power of perseverance is furnished by the life and achievements of Felix Neff, a Protestant preacher in the wild and dreary region known by the name of the "High Alps."

He was born in a village near Geneva, and the village clergyman gave him a tolerably good education. Surrounded as he was by grand and romantic scenery, he early contracted a great love for gardening,—one of the surest indications, as well as one of the most powerful supports, of a benevolent and virtuous character. For some time, therefore, he apprenticed himself to a nursery gardener, and made such successful efforts towards obtaining a sound knowledge of that delightful business, that at sixteen years of age he wrote a very useful treatise on the culture of trees. But much as young Neff loved nature, he had no small share of enterprise and love of adventure, and at the early age of seventeen he entered as a private of artillery. His knowledge of mathematics, and his great zeal and industry, recommended him to the notice of his superior officers, and at the unusually early age of nineteen he was promoted to the rank of sergeant. His proper bent, however, though kept down for a time by the ardour and enthusiasm of very early youth, became at length too strong to be resisted by any merely worldly feelings, and having procured an honourable discharge from the army, he devoted himself heart and soul to the prosecution of the studies essential to qualify him for ordination as a minister of the gospel.

After devoting some time to performing the duties of what is called a pastor catechist, Neff came to England, and was ordained as a minister at the independent chapel in the Poultry, London. We believe he frequently preached while he

remained in England, but in about six months after his ordination he was appointed to the arduous post of pastor of the High Alps, and he immediately departed to commence his truly onerous as well as important duties.

The district in which the lot of our young clergyman was thus cast, is as dreary and comfortless as it is possible to imagine; but the sterile soil and the snow-covered mountains had no power to daunt the Christian enthusiasm of Felix Neff, who traversed the most difficult roads in the most inclement seasons, unwearied in well-doing, and seemingly insensible to toil, danger, cold, wet, and hunger; now scaling the rugged rocks with the activity of a herdsman, and anon traversing deep glens strewn here and there with the wrecks of rock hurled down by former storms, and significantly forewarning of the fate which an avalanche might at any instant inflict upon the pious adventurer.

Well was it for the widely-scattered flock of Neff, and well was it also for that zealous pastor, that the occupations of his earlier years had fitted him for hardy and enduring pedestrianism. The healthful labours of the gardener, and the severe training of the disciplined soldier, were admirable preparations for the man whose flock was so widely scattered, that in one direction he had to travel twelve miles, in another twenty, in another thirty-three, and in the fourth sixty miles! And this, too, in the worst seasons, and by roads of which residents in England are positively unable to imagine the difficulties.

The people who were thus fortunate in a pastor were simple, honest, and laborious; but they were indescribably ignorant both as to things spiritual and things temporal. Neff, who possessed a wonderfully large share of good, shrewd common sense, in addition to the learning peculiarly requisite for his sacred office, had too often and too acutely looked upon mankind to be unaware that temporal comfort is a strong safeguard of spiritual goodness. Torture the body with cold, hunger, nakedness, and precisely in the same degree do you unfit the mind for that meditation, and for that holy and hallowing love and admiration of the Creator, without which the "company of preachers" shall preach but in vain,—and but vainly shall the martyrs of old have testified with their blood to the truth and the abiding firmness of their belief. All this Neff well knew, and, therefore, while he was "instant in season, and out of season," in "preaching Christ crucified," he busied himself at the same time with the temporal improvement of the simple and miserably poor people who were so fortunately committed to his trust.

It is truly marvellous what an amount of real good may be done by the exertions of even one energetic man of strong mind. Windows admitted the light of heaven to huts from which for the first time the curling smoke was conveyed by chimneys, cattle were kept in their proper sheds instead of sharing and polluting the residences of their masters; and though the soil and climate bade defiance to man to raise the more nutritious and luxurious crops, without which the native of more genial climates would deem it a great wretchedness, if not an absolute impossibility to exist, yet Neff soon taught his people that by improving their mode of tillage they could very materially increase the quantity of the simple fare which life-long habit had rendered, perhaps, the fittest for them.

His skill as an engineer taught them how to irrigate their meadows, and thus double and treble their crops of grass, and he taught them to cultivate that truly valuable root, the potatoe.

At first, in addition to all the other difficulties of his benevolent task, Neff had to contend against the prejudices of his people, which, as is usually the case, were invariably the

strongest just where they had the least shadow of reason for their warrant. But the evident zeal, the untiring patience, the self-control, and self-privation, and, above all, the obviously sincere and disinterested benevolence of the pastor, gradually subdued all prejudice, and awakened in the minds of his flock such a love and reverence, that whenever he stopped in a village far distant from his home, that peasant was an envied and happy man with whose family Neff shared the humble meal, and beneath whose roof he slept upon the hard floor. By degrees every part of his extensive district assumed a new and improved appearance; labour was now aided by a hitherto unknown skill, and the produce of their union was an increase at once of comfort and of health.

Let us not suppose for an instant that Neff *solely* attended to the temporal state of his flock: on the contrary, he instructed both young and old in their religious duties, smoothed the last hours of the dying, and poured balm into the bruised and suffering hearts of the survivors. And when the extreme rigours of winter rendered out-of-door labour wholly impracticable, he taught his people to read and write; arithmetic came next, then geography, combined with condensed but lucid history, and finally the knowledge thus poured into minds hitherto unconscious of the very existence of literature, was brought to the illustration and enforcement of religious truth. Having thus improved both the bodily and mental condition of his people, Neff had little difficulty in persuading them to keep alight the intellectual flame he had laboured so hard and so zealously to kindle. School-houses were erected, and an organized system of instruction commenced among the people themselves; and when ill health at length compelled the author of so much good to retire from the bleak scenes of his worthy labour, and seek repose in his native Geneva, he did so in the glorious and consolatory certainty that he had laid a foundation which storm cannot shake, or time crumble.

We have purposely refrained from quoting from the delightful biography to which we are indebted for the facts contained in the foregoing portions of this article, because the work is so valuable and so eloquent, that we are anxious to direct the attention of our readers to it; certain that the perusal of it cannot fail to be of most important service to them.* But there are two brief passages which we cannot forbear from borrowing; the first characterising the labour of Neff, the second enforcing his example upon Christian ministers.

"He so condescended to things of 'low estate,' as to become a teacher of the A B C, not merely to ignorant infancy, but also to the dull and unpliant capacities of adults. Commencing with the most tiresome rudiments, he proceeded upwards; leading his scholars methodically, kindly, and patiently, until he had made them proficient in reading, writing, and arithmetic, and could conduct them into the pleasanter paths of music, geography, history, and astronomy. His mind was too enlarged to fear that he should be teaching his peasant boys too much. It was his aim to show what a variety of enjoyments may be extracted out of knowledge, and that even the shepherd and the goatherd of the mountain-side will be all the happier, and all the better, for every piece of solid information that he can acquire."

Simple words! but beautiful as simple, and true as beautiful; and a far higher and more hallowed tribute is paid to the memory of the Pastor Neff in the glow of the "peasant boy's" spirit as he looks discerningly up to the starry heavens while tending his flock upon the mountain

* Memoir of Felix Neff; by William Stephen Gilly, A.M., Prebendary of Durham. London: Rivingtons, 1832.

top, than ever was paid to the warrior of a hundred fights—unless altar, and faith, and fatherland, instead of ambition and brute ferocity, made his sword leap from the scabbard, and gave might to his arm and courage to his heart in the day of battle.

Speaking in his capacity of a clergyman of the Church of England—a capacity to which equally by learning, zeal, and piety, he has long done honour—the reverend biographer says,—"It is well that we should see how hard some of our brethren work, and how hard they fare, and that we should discover to our humiliation that it is not always where there is the greatest 'company of preachers' that the word takes the deepest root."

Happily the great body of the Church of England's ministers are distinguished equally by zeal, ability, and piety; and though such an example as that of Neff must be valuable to any and to every body of men, we feel bound to say that we believe there is not a body in the world by which it is so little needed as by the ministers of our church.

But shall we of the laity not also be benefited by such an example? Shall we merely lift our hands and eyes in ignorant and transient wonder, exclaim that Neff was a great and good man, and then testify our sense of his greatness and his goodness by sitting down in frigid supineness, adding no jot or tittle to our own knowledge, or to the welfare of our fellow-creatures? If we, inhabiting a climate of the most favoured description, and enjoying plenty, comfort, and comparative leisure; if we thus situated can act thus basely and foolishly, let us at the least be consistent—let us burn every record of the life of the Pastor Neff; for his glory must, in such a case, be our shame, his highest praise our utter condemnation.

The fate of this great and good man is well calculated to impress upon youth the duty and necessity of attending to the advice given to the adventurous and ardent Phaëton—"In medio tutissimus ibis." Industry itself may be carried to too great an extent; and when a man of benevolence and ability tasks himself beyond his bodily strength, he is guilty, however unconsciously, of a practical fraud on society; every hour by which he shortens his own life being a subtraction from the benefits he had otherwise conferred upon his fellow-men.

Like that truly patriot king, "Alfred the Great," our subject was so devoted to his self-imposed labours of usefulness, that his constitution, strong as it once was, broke down beneath the severity of his labours, and, after enduring months of the severest suffering and debility, he expired at Geneva in April 1829, being then little more than thirty years of age.

Ought not such an example, ought not such extensive good, compassed with means so apparently inadequate, and in despite of difficulties so apparently insuperable, to make vigorous and well-situated men ashamed to be heard complaining of shortness of life and paucity of means, while wasting the one in idleness, and devoting the other to selfish and criminal, or ridiculous, pursuits of what they facetiously miscall "pleasure?"

LUMINOUS APPEARANCE OF THE SEA.

IN warm latitudes the sea at night frequently presents the appearance of liquid fire. If calm, the dip of an oar or the skimming wing of the smallest sea-bird causes every drop of the disturbed water to present the appearance of fiery

spangles: and if agitated by a tempestuous wind, the vast expanse rolls hither and thither like the molten fire of a visible and tangible Phlegethon; and as the vessel cleaves her way, a phosphoric light plays round her head and stern, sufficiently strong to enable a person to read tolerably large print without difficulty.

Many voyagers have described this singular appearance of the sea; and Stewart, in his *Journal of a Residence in the Sandwich Islands*, gives a very vivid and graphic account of it. "The horizon," he says, "presented in every direction a line of uninterrupted light, while the wide space intervening was one extent of apparent fire. The sides of our vessel appeared kindling to a blaze, and as her bows occasionally dashed against a wave, the flash of the concussion gleamed half way up the rigging and illuminated every object along the whole length of the ship. . . . The smaller fish were distinctly traceable by running lines showing their rapid course; while now and then broad gleamings, extending many yards in every direction, made known the movements of some monster of the deep."

Though various preceding voyagers had noted and described this phenomenon, nothing like a satisfactory account of it was given by any naturalist. Mr. Stewart, whose work we have quoted above, states it to arise from luminous sea animalculæ, especially the *Medusa pellucens* of Sir Joseph Banks, and the *Medusa scintillans* of Macartney; and the best informed naturalists agree with his opinion. It is not, however, by any means certain that the phosphoric appearance caused by the marine animalculæ is not aided in its appearance by the decomposition of animal and vegetable substances; and probably the state of both the ocean and the atmosphere has a considerable influence in making the appearance more or less splendid.

If it at first sight seem incredible that mere animalculæ can cause appearances so splendid and so extensive, let us consider that the glow-worm of our own country and the fire-fly of the West Indies can singly produce a very vivid light; and, knowing that animalculæ are wonderfully numerous even in the minutest drop of water, we shall easily conceive that countless myriads of phosphorescent animalculæ assembled in the waters of a hot latitude, may give out the splendid light of which all voyagers who speak of it give so enraptured an account.

HINDOO SECTARIANS:

SEIKS, BANIANs, AND BUDDHISTS.

LIKE the great majority of all the religions of the world, the Hindoo faith has a variety of sects,—by some writers reckoned at as high a number as eighty; and, as is also the case with the majority of other religions, the difference between the various sects is as trifling in its foundation as it is bitter in its mode of manifestation. The sects called Seiks and Banians, or the sects of *right hand* and *left hand*, divide nearly the whole peninsula of India among them. The distinguishing tenet of these sects is their considering one of their hands as impure for any other purpose than private ablutions; and they have contended for the preeminence of their respective sects with such exceeding bitterness, that their quarrels used formerly to occasion the most violent and sanguinary battles, and even at the present day the one

sect will not allow the marriage or funeral processions of the other to pass through their lands.

The founder of the sect known by the name of the Seiks was named Nanac, and was born about the middle of the fifteenth century. The sanguinary wars which at that time raged between the Mahometans and his fellow-countrymen excited so much of his commiseration that he endeavoured to reconcile the Koran and the Vedas, by demonstrating that his nation, though they had false and numerous minor deities, yet acknowledged but one Supreme Being. But this humane step had the effect which only too many similar endeavours have had in all times, and in all countries; and so far from putting an end to the disputes between the two parties, he formed a third, which did more to kindle destructive wars in the country than had been ever done by the other two. After the death of Nanac, his adherents, consisting of persons of all ranks, attributed to him the power of working miracles,—so great was their zeal for his memory.

The Seiks increased for a series of years in both power and numbers till their fourth spiritual chief, or guru, built Ramdaspoore, now termed Armitsar, which is their sacred city. For a time they were unmolested; but their tranquillity was doomed to be disturbed by their fierce enemies the Mussulmans, whose persecutions stung them into being a people of most intrepid and unsparing warriors, and half a century later the repeated cruelties of the Mahometans, and the murder by them of the chief of the Seiks, caused a new and a bolder champion to arise, in the person of Govinda, at that time the guru; a leader well fitted to do justice to the Seiks in the capacity of legislator, as well as in that of warrior chief. In order to inspire them with greater enthusiasm, he caused them to go constantly armed, and to take the name of Suidh, or Lion. While thus endeavouring to raise them in their own estimation, he enjoined various customs upon them which were calculated to make them disliked by the neighbouring nations, and, by consequence, prevent them from amalgamating with them.

Govinda, by his courage as a chief, greatly exalted the character of the Seiks among their neighbours, while his enactments as a legislator greatly tended to improve their

social condition. For instance, he abolished all those absurd distinctions of caste which have done so much to retard the progress of the Hindoos in general both as to wealth and civilisation; a measure which none but a truly sagacious and firm minded man would have conceived, and which, assuredly, none but a very able, dexterous, and popular man could have brought to a successful conclusion.

Subsequently to the death of Govinda no guru has succeeded to his power, and even in the field of battle the free Seiks scarcely acknowledge any ruler or chief.

The Banians are a sort of Pharisaical Hindoo. Of course they in common with the other sects hold in abhorrence the act of depriving any animal of life; and so far do they exceed the Hindoos in general in this particular, that some of them wear a gauze covering over their mouths, lest any insect should be accidentally swallowed, while others carry a brush of feathers, or similarly light materials with which they ostentatiously sweep the ground before they sit down, lest they should by accident crush any insect to death. The more rigid members of this extremely severe sect are not only abhorrent of slaying any animal themselves, but they even go so far as to purchase animals from less scrupulous persons in order to save the effusion of blood. Of this practice European soldiers and seamen frequently take advantage, by pretending to be about to kill some bird or small animal which the Banian purchases and sets at liberty; the rogues of sellers laughing in their sleeves the while at their exceedingly acceptable bargain!

But the acmé of Banian superstition or affectation is exhibited at Surat, where this sect has actually founded an hospital, not only for animals in general, but even for those foul vermin which filthy habits produce, and which Europeans are loath even to mention. The only sort of inmates not admitted to this most extraordinary hospital are carnivorous animals; and this exception is doubly strange from the fact that beggars and other miserable wretches are lured occasionally and strapped down among loathsome vermin, that the latter may gratify their taste for human blood.

Of the sect called Buddhists, we find that we must defer our description to our next number.

HOW TO DISARM CALUMNY.

If the general diffusion of a taste for reading had not another recommendation, it would be invaluable for its tendency to do away with that love of idle gossiping in which far more frequently than in any premeditated malice attacks upon the characters of the absent originate. Ill-informed people are none the less fond of hearing the sound of their own voices because that sound is unaccompanied by any sense worth their while to utter, or worth the while of their auditors to attend to; and when the weather, the play, the dress of this person, and the health of the other, have been twaddled about as long as flippancy and dulness deem fit, rather than there should be a pause in what is called conversation, mere folly is laid aside for falsehood, and character is commented upon just as recklessly as dress and the weather had been. The baseness and cruelty of this sort of defamatory gossiping are scarcely greater than its folly. People who are guilty of it are invariably weak people as to intellect, and generally remarkable for any thing rather than strict morality; and the very people upon whom they bestow their mischievous loquacity never fail to return the compliment the instant the party breaks up; with this

difference, that those who have gratuitously defamed others are censured for vices and ridiculed for follies of which, though they are themselves complacently sure that they are innocent, every one of their acquaintance, who is not actually deaf, blind, or idiotic, will concur in pronouncing them guilty.

It were to be wished that every man calling himself, and expecting others to consider him, a man of honour—and honour in its true sense is confined to no rank or occupation—would invariably, on hearing the absent censured, assure the censor of his firm determination to let the accused party know every word that has been uttered to his prejudice. What consternation would an announcement of this sort produce in a slanderous coterie! How would some anticipate exposure and chastisement; and how would others read their lamentable palinodia in their intense horror of anticipated “costs and damages”—*£. s. d.*!

If, Asmodeus like, we could stand behind the chair of an habitual calumniator during his perusal of the foregoing observations, we feel pretty sure that, after his having vented sundry pooh-poohs, and pishes! and pshaw! we should

hear him declaim somewhat prosily about the impudence of a writer openly advocating a breach of confidence. Aye! there is the stronghold of the cowardly and cruel practice of speaking ill of the absent—it is all said “in the strictest confidence.” Indeed! But gentlemen, by your leave, however you may palm off this sophistry upon your fellow-calumniators, or upon the unthinking people who lend to them and to you an attention of which your habits make you very unworthy, we should be extremely sorry that our readers should be led astray by any such small device. We take the liberty, therefore, to inquire a little into this “confidence.”

If Mr. White be so utterly destitute of more dignified occupation for his time, as to feel it right and necessary to entrust a full, true, and particular account of all his sayings, doings, outgoings and incomings, to Mr. Black, we know no one who has any right to interfere: and if Mr. Black, having “sworn eternal friendship” with his interlocutor after a delightful acquaintance of ten days, choose to listen to the precious news, and vow to carry it untold to the grave—why we have nothing to say against Mr. Black’s moral character, whatever we may incline to think of his taste. But when Mr. White talks, and Mr. Black listens, not about Mr. White’s or Mr. Black’s affairs or conduct, but about Mr. Brown’s—Mr. Black is nearly as great a wrong doer in pledging himself to secrecy as Mr. White is in demanding that pledge, and thus obtaining the power to slander the absent without running the risk of having summary or judicial punishment inflicted upon him. “Confidence,” indeed! what right have we to pledge ourselves to throw a shield over a man who tells us, substantially, though not in terms assures us, that he is a gossip and fool, or a liar and a coward? Is what he tells us true? He says so, nay, in all probability he adds to his other amiable qualities by attesting the truth of his tale by a round oath; but then he would not have it known for all the world. Then why does he tell it to us?—are we so utterly contemptible that our opinion of Mr. Brown is quite inconsequential? That good, gentle, and just Mr. White would not for his ears venture to tell us in terms; yet he at the same time implies it, and begs of us to believe ill of an absent man without giving that man even a chance to show himself innocent of the follies, vices, or crimes which are thus gratuitously laid to his charge. Besides, what right has this man who is so incontinent of his secrets to expect that we shall be more silent than he; we who have his assertion for facts which he wishes us to believe, and yet prohibits us from testing?

Even when the ill, spoken of the absent, is true, the evil speakers are gossips and fools if they are unable to keep the matter to themselves, and yet unwilling to make it known; but when the evil is falsely spoken, no language which we could bring ourselves to use is adequate to the description of the base and loathsome cowardice of the calumniator. Choose either horn of the dilemma; be it true or false that is spoken of another, how can we fairly be called upon to hear it confidentially? We, at all events, have only our informant’s bare word, and we have no right to let any man suffer in our esteem until we have inquired into the grounds of the accusations affecting him. Let us put a case:—We are acquainted with a person of whose principle we have so good an opinion that we would even at a personal inconvenience to ourselves aid him in his honest and useful efforts. His business renders a temporary supply of money necessary—we can spare that money, and by lending it to him we materially advance his interests without in any wise injuring our own. But just as we are on the point of furnishing him the necessary aid, we hear a serious charge

made against him. We are told that Tompkins once thought well of him, lent him a hundred pounds, and lost his money for his pains. Oh! but all this is told “in the strictest confidence!” How are we to act then? Shall we lend our money to a man who is represented to us as being not a single degree, morally speaking, superior to a common thief?—shall we descend to the almost equal baseness of telling a lie?—shall we declare that we have not the means of aiding, when in point of fact we only lack the will? Shall we upon the hearsay evidence of one man convict another man unheard?—Not so: our duty to all parties is to state what we have heard, and from whom we have heard it. Nine times in every ten our very “confidential” information will turn out to be an egregious error or a deliberate falsehood; and thus our candour will lead to the double good of rescuing one man from an unjust and injurious imputation, and of making another more careful how he ventures to speak ill of the absent. And supposing that the imputation prove to be well founded, we can save our money without resorting to falsehood or equivocation, for in that case we have only to advise the defaulter to apply not to us, but to Tompkins.

The habit of gossiping almost invariably leads to the detestable vice of calumny, and the prevalence of both is such as to render it necessary to the best interests of society that some vigorous efforts should be made to arrest their farther progress; and we know of no more effectual way of accomplishing this than the adoption, by all who are neither idle or malicious, cruel or cowardly, of an invariable rule of making every thing known which they hear spoken to the serious injury of moral character.

Much, however, as we detest and despise the practice of calumniating the absent, we cannot but point out to our readers that their characters chiefly depend upon themselves. Chesterfield, with his usual acuteness, observes that scandal more frequently exaggerates than invents; and he who gives no offence to virtue will rarely be libelled even by the most vicious, while he who errs in a few points may lay his account with being accused of erring in many.

CLEANLINESS ESSENTIAL TO HEALTH.

To be very heartily laughed at as being an exceedingly dull dog, or an amazingly facetious lover of paradox, it would be only necessary for one to say that there are two things which all the world desire, and which, notwithstanding, the majority of the world will not stretch out their hands to retain; but laughter in this case would be as much misapplied, and out of place, as it usually is. Does any one pretend that he does not wish to be healthy and happy? Can he be the latter if he be not the former? And yet cleanliness, one of the very chiefest and most potent preservatives of health, is a virtue more neglected in this otherwise intelligent country than any other we can at this instant recollect.

Some time since it was proposed to construct expensive public walks for the recreation of the inhabitants of great towns; a measure which, were all other essentials already provided for, would have our truly hearty concurrence. But however large any of our towns, and however dense and bad the canopy of smoke arising from flues of furnaces and from workshops, there are already suburbs in which a purer air may be found, and in which there is abundant space for the artisan to take the necessary exercise and recreation. But

where will a poor man find his bath? Even in the neighbourhood of rivers bathing is scarcely practicable, decency forbidding on the one hand what due attention to health so strongly recommends on the other. Public baths first, therefore, should be cared for;—expensive public walks can be waited for.

But though there are no public baths to which the labouring population can have access, every one who chooses may remedy this want as far as practical effect goes, though not in point of convenience.

In order that our recommendation may not seem to be unsupported, in order that people who call themselves cleanly because they have clean hands and faces may not suppose that we are declaiming against a merely imaginary evil, we beg our readers to observe, that ablation of the whole person is absolutely necessary to cleanliness, as cleanliness is to a sound body and a cheerful mind. Are we asked why? Suppose the whole surface of the body to be spotted with little holes, amounting in the aggregate to millions—supposing each of these little holes to be at every instant discharging a globule of clear water—supposing all these holes to be completely stopped up, and the water consequently kept from springing forth; are we to suppose that that water thus prevented from coming forth will have no effect upon the internal man? Well! this actually takes place at every instant of our healthy existence; and though the globules of water are so minute as to be quite invisible to the naked eye, they are distinctly visible through the medium of a good microscope. What are commonly called colds, and what quite commonly terminate in consumption and death, take their origin from a sudden stoppage of the invisible perspiration: and a mere remembrance of this fact ought to suffice to assure us that a systematic and permanent stoppage of them by dirt cannot fail to be injurious to the general health and spirits. Moreover, at what period of a man's four-and-twenty hours does he feel so buoyant and vigorous as just as he has taken his bath!

While we are upon the subject of cleanliness, we beg to remind our readers, that even though they should be indifferent to the appearance of their teeth; though they should think black teeth and a foul breath no offence to others, and no inconvenience to themselves—we beg to remind them that the tooth-ache is quite another matter. Some diseases of the teeth are no doubt constitutional, but the great majority of them have their origin in the beastly practice of leaving the teeth uncleaned. A filthy white substance accumulates in the intervals of the teeth, and—hear it, lover of dirt!—this matter is full of lively, voracious, eel-like animalculæ, for whose especial support and increase you eschew the tooth brush, and endure the tooth-ache; are obliged to employ the dentist in your early manhood, and will not be able to chew a crust, if your life depend on it, long before you reach old age.

“PROCRASTINATION IS THE THIEF OF TIME.”

MUCH of the shrewdest knowledge of the world is contained in those pithy concentrations of “the wisdom of our ancestors,” which the fastidious and silly wrongheadedness of but too many moderns leads them to look upon as being “too quaint,” and “too low,” and too this, that, and the other, for their delicate and dainty acceptance. It makes us very angry to hear or to read these silly sneers against “the winged words and bodies of thoughts” which our wiser ancestors had engraven upon their table utensils, and painted

in the most conspicuous parts of their apartments; and which even the comparatively uncivilized natives of eastern countries are at this very day in the habit of commingling with texts from the Koran upon the lintels and door-posts of their dwellings. To be angry, however, is in all such cases an extremely useless and unwise procedure; and we propose to do a much better thing in from time to time giving short papers founded upon those proverbs which seem to us the most perfectly applicable to the every day affairs of life.

Among these so unjustly despised laconisms of practical wisdom, few are more entirely true than the adage—“Delays are dangerous;” an adage which we should have no objection to see engraven upon the walls of every place of business, and one which most assuredly ought to be deeply imprinted upon the mind of every young man who desires to be even tolerably useful to society, and prosperous in his own endeavours at self-aggrandizement.

The habit of procrastination is the invariable vice—for it is really a vice, and a very shameful vice, too, when the property and affairs of others are at all dependent upon our punctuality—of weak and indolent men; and, as a peculiarly just retribution, men of this stamp are almost uniformly compelled to bestow double the pains at last which would have sufficed for their task if cheerfully and promptly taken in hand at first. To men of this sort the present time is to all practical and useful purposes annihilated—they live for by and bye, to-morrow, and next week; now, as connected with labour, is a word they can by no means compel themselves to pronounce. “Yes! I will certainly do that to-morrow,” says one of these men; the morrow comes, and he will not agree with the pithy phrase, “*To-day is the to-morrow of yesterday,*” but drowsily reiterates to-day what he said yesterday—“Yes! I will certainly do that to-morrow!”

Never can it be more than sufficiently impressed upon the young reader, that no honesty, no ability, can compensate for a want of promptitude; it is the very life-blood of all successful action, whether on behalf of ourselves or of others. It is a shameful thing, surely, that having, to-day, our usual health, we put off till to-morrow the performance of that which requires our healthful condition. Are we immortal, then, that we thus dare to dally with time and defer duty? Is the book of doom so legible to us that we can ensure to ourselves on the morrow, on which we so presumptuously promise the performance of to-day's duties, the health, the strength, the sanity—nay, can we even ensure to ourselves the mere life the brief space of which we are, as to usefulness, thus impiously and suicidally abridging? If any one, who has viewed the subject of delay in this light, still ventures to be guilty of promising exertion to-morrow instead of fairly and manfully making it to-day, we fear that nothing here said, and indeed nothing that we possibly could say, would have the effect of rousing him from his effeminate and shameful sloth. But we know that procrastination, like many other vices and follies, not unfrequently has its origin in mere unreflecting habit; and we sincerely trust that if that is the case with any of our readers, we shall not, even in this brief and unpretending essay, have lifted up the warning voice wholly in vain.

THE PARSEES.

AMONG the most remarkable of the various inhabitants of Hindostan are the Parsees, or, as they are also sometimes called, the Guebies.

These people are the descendants of the ancient Persians, of whom, in the seventh century, about twenty thousand, driven from their own delightful country by the perse-

cutions of the victorious Abubeker, sought shelter and safety at first in the isle of Ormus but subsequently in Guzerat.

They were kindly received by the Hindoos, who not only afforded them the desired shelter, but also left them free to enjoy their own religious belief, and perform the ceremonies connected with it; only stipulating that their feelings should be so far respected, that the strangers should not kill or use as food the flesh of the ox or cow. When the Mahometans had subverted the Hindoos, the Parsees were still allowed to remain in the full enjoyment of their own religion. But as the Hindoos had prohibited the use as food of the flesh of the ox, so the Mahometans prohibited the use of swine's flesh. It is highly to the honour of the Parsees—and we fear it is an instance of good faith which a history of the treaties of more civilized people nearer home would not very frequently parallel—that the contracts thus made by their ancestors are in full force among them to this day. To these animals, prohibited by their good faith merely towards man, they add, as prohibited for food, hares, deer, and cocks. Why they will not eat the former two does not appear, but the cock is probably spared on account of his proclaiming sunrise by his crowing, and this reason is the more probable because they make no hesitation about eating hens.

The Parsees have been improperly represented as worshipping the elements, and especially fire, as though they were the actual deities; but in truth they revere these only as the grand and visible symbols of the unseen Supreme. The sun, the moon, and the stars, light, nay, even culinary fire, are held by them, on this latter account, in very high veneration. At daybreak they may be seen flocking from their homes to catch the earliest glimpse of the great luminary; and at the instant of his appearance they shout in the most joyful tones;—their animated countenances, voluminous white robes, and variously coloured turbans, presenting to a stranger an appearance as interesting as it is remarkable. Just as the sun sinks below the horizon they again pay their respects; but, as he is now departing from them, there are no cries of joy, but all around humbly and silently prostrate themselves.

Fire they will on no account extinguish or defile. In consequence of which they will act neither as smiths nor as soldiers; and an intelligent authority, long resident in India, assures us that he never but once could induce a Parsee servant to snuff a candle.

Though Parsees may be met with in most parts of Hindostan, the main body of them is still to be found in and around the place in which their forefathers finally sought shelter; and the industry and activity of these people have made all of them prosperous, and many of them exceedingly wealthy.

Though in their own expenditure they are economical, —though far from being parsimonious, the wealthier of them keeping very handsome houses and even carriages—they are an extremely humane people; and it is said, that during a short but terribly severe famine at Bombay, a Parsee of princely fortune, and no less princely disposition, afforded daily food to no fewer than two thousand poor people!

Another excellent trait in the character of these people is their kindness to animals. The dog, especially, is a great favourite with them, and it is no uncommon occurrence to witness a Parsee distributing food to every ownerless dog he may chance to meet during his walks.

Lawsuits and contentions are extremely rare among these singular people; and when any very gross breach of morality does unhappily occur among them, they are so anxious to prevent the act of one or of a few from doing

injury to the high character of the body at large, that they spare neither pains nor expense to keep the matter a secret.

Though, like the Hindoos, they neither make nor will admit proselytes, they have added to the ceremonies originally proper to their own religion some few taken from that of the Hindoos.

In most of their merely worldly customs they of course greatly resemble divers other eastern people. But they have but one wife, who must be of their own race. Adultery they punish with death; but, lest the authorities should prevent the punishment, it is inflicted in secret. The women are said to be extremely beautiful in figure and countenance; with fine black eyes, full of expression, and complexion nearly as fair as that of Europeans.

Taken as a body these are among the most admirable people in Hindostan. Beggars are literally unknown among them; all who are able have some business or profession, in either of which they are remarkable for their courtesy and good faith; and those who from age, infirmity, or misfortune, are unable to support themselves respectably, are zealously and liberally aided by their more fortunate fellows.

A SWEDISH IRON MINE.

THE adventurous and accomplished traveller, Dr. Clarke, describes an iron mine which he visited in Sweden, as being one of the most impressively grand scenes he had ever witnessed; and we need scarcely tell our readers that there were few important parts of the world which he had not more or less familiarly made himself acquainted with. It is from the journal of that adventurous traveller that we abridge the following description.

Over a vast chasm in the earth a sort of platform is erected, furnished with the machinery necessary for raising the ore. Huge buckets were perpetually ascending and descending, the chains to which they were suspended making a melancholy rattling, echoed and re-echoed by the sides of the gulf. Looking down from the verge of this platform, the giddy spectator could see, at upwards of seventy fathoms depth, a multitude of miners flitting about in a fitful and dim light, and looking from the great distance, rather like the pigmies of ancient fable than full-sized and athletic men. Mingled with the melancholy clanking of the bucket-chains, there arose from this yawning abyss a motley confusion of sounds, of creaking wheels, groaning pumps, clash of hammers, and occasionally a tremendous explosion of gunpowder in blasting the rocks.

In the midst of this distracting uproar, Dr. Clarke, attended by his interpreter and two of the miners, made his descent, by means of ladders lashed together, and extending without any resting-place from the mouth of the pit down the whole of the seventy fathoms depth. As if to make the descent more perilous than it needed to be, the ladders were in many places rotten, and in some broken, and the staves were so covered with mud and ice, that the hands of the traveller were completely benumbed; and he candidly tells us he had not got far down ere he heartily wished that he had been contented to remain on *terra firma*. Happening to mention to one of his guides his surprise at the neglected condition of the ladders, the man warned him not to fix his thoughts upon that subject, and told him that a woman belonging to the mine had fallen from the ladder at the very moment when she was complaining of its insecurity. On hearing this comfortable intelligence, the interpreter, simply enough, inquired what became of her. "Became of her?" replied the miner,

at the same time taking one of his hands from the ladder, and slapping it smartly on his thigh, "she became a pancake!"

The Doctor was more fortunate or more careful than the door woman had been, and after much toil and inconvenience arrived safely in the mine. Here the Doctor was astonished at finding "thick-ribbed ice," it being generally understood that the lower you descend into the earth the warmer do you find the temperature. But in this case the great extent of the opening allows the atmospheric air to pour down in such great volumes from above, that the temperature is nearly, if not exactly the same as upon the surface of the earth. Passing along several vaulted passages, the traveller was at length ushered into the principal chamber of the mine, where

amid ice, steam, rushing waters, and a noise all but stunning to ears not accustomed to it, about fifty miners were busily employed in their various departments of labour. Women, haggared and begrimed, with clotted hair and inflamed eyes, holding in their hands lighted torches of pine-wood, "grinned horribly" around them, and yelled out unintelligible words at the very top of their voices. Suddenly the din of hammers ceased, the guides hurried the traveller and his interpreter from the spot, and they had just commenced their ascent towards upper earth when a tremendous explosion seemed to shake all around, and its thunder died away in reverberations more and more faintly heard, until all was again silent.



View of the Greenwich Railway.

LONDON AND GREENWICH RAILWAY.

It is not unreasonable to suppose that the introduction and general use of railroads in this country will effect a complete revolution in its internal commerce. The principal cost of many articles of large and constant consumption is entailed by carriage: if a portion of that cost can without a reduction of profits be abated, it follows that all articles produced or manufactured in remote parts of the kingdom will be materially reduced in price; "a consummation most devoutly to be wished." Great as will be the advantages derived from railroads by the kingdom at large, the prospects of London will be especially improved. This metropolis—the point from which all the roads diverge, and to which

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they all arrive—will be the constant recipient, not only of every species of home manufacture, but all kinds of foreign importation; for it is to be anticipated that merchantmen, to escape the troublesome and dangerous navigation of the channel and river Thames, will deposit their cargoes at the out-ports to be forwarded, per steam carriage, to London. In truth, this city will become an enormous market—a huge channel for commercial speculation, through which will flow tributary streams of trade from all parts of the globe.

Not the least benefit afforded by rapid conveyance would be felt in the cases of war, invasion, or civil riot; the prompt transportation of troops and munition, to any point of the

kingdom in which they may be most required, involves a consideration of no small importance.

Among the minor advantages to be reckoned on, is the possibility of improvement in the quality of meat, as the detrimental and cruel necessity of driving cattle for hundreds of miles to the market, and from thence to "that bourne from whence no traveller returns," the slaughter-house—will be partially avoided. Many animals will, in all probability, be killed near their own pastures, and their carcases forwarded to most of the great markets at a sacrifice of time not half so detrimental as those long journeys now inflicted on the beasts. In short, every kind of food will be supplied to great market towns with increased expedition, with greater freshness, and consequently in a higher state of perfection.

Having attempted to point out a few of the good results to be anticipated from railroads, we will next proceed with a short history of their rise and progress in this country.

Although tracks in large blocks, laid in a form somewhat similar to rails, are of great antiquity, as appears from some of the famous Roman ways still to be seen in the various cities of Italy, yet there can be no doubt that the railway is a British invention, and was originally made of wood; having been first used in Northumberland, for the transit of coals from the mines to the shipping; and to Mr. William Reynolds is due the merit of introducing rails constructed of metal, which were first used in 1767 at Colebrookdale in Shropshire. Cast-iron was the material employed up to the year 1811, when malleable or wrought-iron was

most judiciously substituted at Lord Carlisle's coal-works, in Cumberland. The earliest public railway company was formed in 1789, at Loughborough. Many railroads have been constructed since then by private individuals and companies, and as a substitute for legal authority to pass through the properties and domains of landed proprietors, the expedient of *way-leave* was introduced:—a source of revenue in the form of tonnage, paid to the owners of the soil, for liberty to traverse over their grounds. With the public companies lately established, the case is different. By acts of parliament specially passed for the mutual protection of the public and the proprietors, compensation is obliged to be given for the property of those persons whose estates are intersected by the roads.

Unquestionably the greatest era in the history of railroads was the opening of that between Manchester and Liverpool. It will scarcely be credited in after ages, when the incalculable advantages of this mode of conveyance will have been most felt and appreciated, that notwithstanding the important facilities to be effected by so easy a communication between two of the greatest commercial towns in the kingdom—in spite of the improvement of trade to be anticipated, and which has since been amply realized—the opposition to the Manchester and Liverpool Railroad Bill was so great in the house of commons, that it cost the company two years' of the most vigilant activity and parliamentary tactic to succeed in obtaining legislative sanction for their national undertaking, while it was plainly shown what effect quickness of transit had upon the commercial prosperity of the two



View of the proposed continuation of the Railway through Greenwich Park.

towns, by stating the increase of population since the use of canals.

In 1760 the population of Manchester was about 22,000. Before that time the usual method of carrying cottons and other manufactured goods to the various great markets, was by pack horses and waggons. In the same year the Duke of Bridgewater's canal was begun. In 1824, when the railroad was projected, the population of Manchester amounted to 150,000; having thus increased in the space of sixty-four years. A proportionate augmentation had also taken place within the same period at Liverpool, in both cases mainly attributable to the more rapid and less expensive method of carriage by canal. With the population of both these towns, their manufacturing and commercial prosperity increased, and will doubtlessly progress when the still greater improvement of railroads and steam-carriages is in full operation.

At first view it might seem that the London and Greenwich Railway is a less important undertaking than many others of the same kind already in advanced progress; but when considered as the commencement of the lines to Croydon, Brighton, Gravesend, and Dover, its importance is greatly increased. Many other railways are restricted by Act of Parliament from terminating within seven miles of London; and will, most likely, make use of the Greenwich one to complete their trips to London.

The projector and engineer of this railroad is Lieut.-Colonel Landmann, who has carried out and partially performed his project with surprising exactness and rapidity.

The rails are placed on a viaduct, two and twenty feet high and composed of several thousand arches. A very wise clause* is inserted in the London and Greenwich Railway Act, by which a fine of forty shillings may be inflicted on any person found on the railway unless those employed by the Company, or individuals about to proceed

in the carriages. A neglect of this necessary caution cost a gentleman his life in March last! Constructed as the road is, expressly for steam-carriages, without any view to the convenience of other description of transit, the danger of trespassing on a road where the vehicles pass each other in such rapid succession, must be excessive. A path is provided for foot passengers and conveyances, beside the arches, which is open to the public on payment of a small toll.

By another clause in the same Act, the Company is empowered to fill up these enormous arches with dwelling-houses, warehouses, and shops; some at the Deptford part of the road have already been built, and a view of them is presented to our readers. When these singular structures are completed, they will present the novel spectacle of one even street, extending from London to Greenwich, a distance of nearly four miles!

At present the carriages run no further than Deptford; but towards the close of the ensuing summer it is expected that the whole line will be completed. The distance saved by the new road is one mile and a quarter; the journey by the old one is five miles, while the rails have shortened the distance to three miles and three quarters.

The gross capital with which the Directors of the Company began their undertaking was 400,000*l.* in twenty-thousand shares of 20*l.* each. Commercial men always looked upon the speculation as a safe one, and the shares found a rapid sale. From Returns made to the House of Commons, it appears that the number of daily passengers between London and Greenwich is four thousand. Upon one-third of these the Company may, we should think, safely reckon; while the evils to be anticipated from a probable monopoly will be checked, first, by the number of steam vessels which perform the same distance on the river; and, secondly, by a partial continuance of the vehicles now in use.

U.

ON THE INFLUENCE OF THE CONQUESTS OF ROME UPON HER LITERATURE AND ARTS AND SCIENCES IN GENERAL.

THERE is nothing, perhaps, more interesting than to trace the progress of the arts and sciences from their infancy to the state of perfection which they may have attained in any particular state. In the case of Rome, the research is doubly attractive, when we consider the great influence that she has exercised upon the present times, in being the more immediate source from which that knowledge was drawn which has served as a foundation to the wonderful superstructure raised by the few last centuries.

The Romans, from their first existence as a nation, were so constantly engaged in warfare, that their character appears to have received from this circumstance a settled impression, to obliterate which many succeeding ages were required. This impression was, as may be imagined, diametrically opposed to the cultivation of the fine arts, and to it may be attributed their want of originality. Busy in far different pursuits, it was not until *Græcia capta ferum victorem cepit*, that, as it were, a new world burst in upon their astonished view, that the beautiful creations of poetry, painting, and sculpture, excited their astonishment, and aroused their emulation.

During the few years of peace, immediately subsequent to the first Punic War, the Romans first directed their attention to any thing like literature; to this they appear to have been

led by a more intimate intercourse with Greece, and accordingly the rude essays of Livius Andronicus at dramatic composition were founded upon and translated from Greek models. In succeeding times he was at once followed and surpassed, in their different styles, by Nævius, Ennius, Plautus, and Terence; but it does not appear, till after the battle of Pydna, that the literature of Rome derived much benefit from her conquests: at that time the first library was established at Rome, with books obtained from the plunder of Macedonia.

Although, however, at this period they regarded the works of Grecian genius as valuables, it is quite evident, that of the nature of their value they were ignorant. That they were as yet incapable of comprehending their beauties is palpable from the remarkable conduct of the consul Mummius, when, after the capture of Corinth, he took measures for transporting its treasures to Rome, and enjoined those appointed to convey the statues and paintings to be careful how they lost or damaged any of them, adding, that in case they did so, they should make others in their stead; the appearance of them, however, at Rome caused juster ideas to be formed, and from admirers naturally produced imitators.

The commerce of the Romans, which had hitherto been confined to the shores of Italy, now began, from their naval successes against the Carthaginians, and a natural ambition

* The sixty-eighth.

of rivalling them upon their own element, to be extended in almost every direction. This, perhaps, is another proof of their want of refinement at the time of which we are speaking, since commerce seems to be always the forerunner and begetter of improvement, inasmuch as nations are obliged originally to depend upon others for those indulgences which are yet entirely new to them, and then, becoming acquainted with the pleasures of luxury, and their delicacy and industry being equally awakened, they proceed to farther improvements, as well in domestic as in foreign trade.

The reason which has induced moralists to inveigh so strongly against refinement in the arts is the example of Rome, which, they say, as long as it combined virtue with rusticity, and public spirit with poverty, stood upon the highest pinnacle of glory; but having learned from its conquered provinces the Asiatic luxuries, fell into every kind of corruption, and became the victim of political sedition and venality. All the Latin historians agree in attributing the downfall of the state to the introduction of arts and riches from Greece and from the East; and Sallust goes so far, as to represent a taste for painting as a vice equally enormous with drunkenness. But though it may appear presumptuous to offer to set up an opinion contrary to that of men whom we are always accustomed to consider amongst the wisest of mankind, yet it would not be difficult to prove that the disorders of the Roman state, which they have ascribed to luxury and the arts, did, in fact, derive their origin from an ill-modelled government, a defective system with respect to their foreign relations, and an inordinate thirst after conquest.

Πολλ' ἡπίστατο ἔργα, κακῶς δ' ἡπίστατο πάντα.

The shortness of life is a common theme of complaint. Divines preach it, philosophers discuss it, and poets sing it. Perhaps, after all, from neglecting to make a proper disposition of his time, man is himself the cause of this apparent brevity. It is not that life is short, but that he loses the greater part of it; how, then, we may employ our time most fully, and to the best advantage, appears to be a not unimportant inquiry.

There are many whose time is constantly employed, but upon objects evidently useless, either to themselves or their fellow-creatures; these may be dismissed without farther consideration, it being palpable that their example is not to be proposed as a model for imitation. But there are others, and a very numerous class they form, whose labours, though unremitting and apparently well directed, are nevertheless wholly unproductive of beneficial results; they are like drones buzzing about the flowers, with just as much noise and pretended earnestness as the working-bees, but who, with all their bustle, never extract a single drop of honey. Among them is the superficial bookworm; he is one who is constantly feasting, but never getteth fatter; his palate is not over-nice, for the savour of every thing book-shape tickleth it; his digestion, however, is nought, for he never giveth it time to perform its functions; he tasteth Shakspeare, and thence turneth to a newspaper, which is succeeded by a novel, or Aristotle, as the case may be; nothing like order is observed in the succession of his dishes, so that the steams of his banquet rise to his brain in a perfect jumble, and the figures that he conjures up are all clothed in motley; his mind is as much debauched as the body of a real glutton; question him on the politics of the day, and he will quote the Arcadia, or talk of Plato's Republic; mention the farmer's life, and he will repeat an idyl of Theocritus; nothing comes to him not spoiled by the sophisticating medium of books; for the great book of nature, as it has been called, he careth nought,—it is an

unbound book, neither can he have the pleasure of seeing it adorn the shelves of his library; he plumeth himself upon a species of omniscience with respect to books, and twiteth you with ignorance if you know not of *Lucas Gauricus de Astrologia*, or Gower's *Vox Clamantis*; in fact, refusing to learn anything but from books, and learning from them merely as books,—without system and without thought, he imagines that he whips the cream from every one he reads, and the result is, an anomalous mixture spread like a flood over an extensive surface, and, as that is, shallow.

Another of the characters composing this class is, the "Jack of all trades," and as the saying most justly has it, "master of none." If you meet him, he tells you he has lately bought a Galba, and sold a Carlo Dolce, when, upon seeing the former, you discover that it is a defaced George the First halfpenny, and you know that the latter was a modern daub; that he has taken out a patent for a steam balloon, and invented a new waterproof cloth of thistle-down; he can turn a snuff-box, but one might as well carry a tea-caddy for the purpose; and he can even make a coat, but a sack with a pair of sleeves to it would be a better fit; he will offer to manufacture for you an easy chair, but it will belie its name; and if you take any of his medical prescriptions, you will be too weak to stir out of doors for a fortnight after. With abilities naturally good, but undirected, and wasted on a thousand frivolities, had he concentrated them upon one pursuit, he might have been an object of admiration, while, as it is, he is subjected to universal ridicule.

A thousand instances of talent wasted because too widely exerted, might be cited, but the specimens already adduced are sufficient. The genius of man is not universal, and the exceptions of Aristotle and Voltaire, who, as writers, were nearly so, only tend to prove the rule. Our spheres of thought and action are both limited, and that to a very narrow extent, and he will best deserve, not only the thanks of his fellow-creatures, but, what is better, his own self-applause, who, directing his pursuits by the measure of his qualifications, can excel, even if it be but in one good part.

EDUCATION IN AMERICA.

It is truly cheering to observe the anxiety that is everywhere shown to elevate the intellectual and moral standard. Prussia, the most paternal and benevolent of all absolute governments, is perhaps, on the whole, furthest advanced as to national education, excellent of its kind, and so provided for as to be within the reach of the poorest subject in the state. America has, within the last few years, imitated among its republican people the course pursued by the monarchical government of Prussia; and, different as the two people are in almost every other particular, they are singularly alike as to their wise anxiety,—in the words of an able American writer,—that "every one shall be so educated that however humble be his origin, he may be set out in that course which, if his talents and opportunities in life permit him to pursue it, may lead him to the highest attainments in knowledge and virtue."

Throughout all the states of America there is the utmost anxiety to *really* educate. School books, of a character never, until recently, known in that country, are selling by thousands, not merely making knowledge more facile, but also more practical. Instead of the good old barbarous system, even yet retained in but too many of our own schools,—of making children learn by rote, grammar,—of the principles of which they have not the capacity to comprehend any thing,—literal translations, in what is called in England by the name of the Hamiltonian System, are

enabling youth easily and thoroughly to master, in a few months, what it was difficult to make a superficial acquaintance with in several of the most precious years of life.

While Latin and other languages are being very extensively taught in America by this rational, though by no means novel plan,* the sciences are familiarized in no less a degree, and even toys are contrived to give a practical acquaintance with geometry, long before children are old enough to make acquaintance with Euclid.

Several works in that country are wholly devoted to educational topics, and they are written in a style of sound philosophizing, such as might with infinite advantage be imitated elsewhere. The object of the writers in these

works seems to be to *teach teachers*, to lay the foundation for teaching as a science, and one depending for its success upon important principles, requiring no common severity of mental labour. Public meetings of the ablest collegiate professors are also frequent in America, in which all important educational questions are calmly and impartially discussed, and much valuable information is thus afforded to young teachers, enabling them to add, to the activity and energy proper to their own season of life, the wisdom and caution derived from the experience of a far later one.

With such helps as these America cannot fail to acquire the greatest of all greatness,—that, namely, which is founded on national intelligence, and consequent national virtue.

NO. I.—SELF-INSTRUCTOR IN BOTANY.

INTRODUCTORY ARTICLE.

We have frequently felt surprised that amid all the zealous and truly honourable zeal and activity which prevail on the important subject of education, this most delightful science has been so generally left unrecommended. We are as far as any of our contemporaries from undervaluing the severer studies; but we would combine with them all those which can contribute either to the student's pleasure or to his health. We particularly refer to the subject at this precise time, exactly for the same reason which in a recent number we referred to the useful and healthful art of swimming—namely, because the subject is appropriate to the season of the year. Backward as the spring was, nature is now exhibiting some of her brightest hues, and some of her richest perfumes! The hedges and the fields present already—and every week will make them still richer—abundant temptation for the botanist to exercise among them his science, which affords delight and wisdom without expense to the inquirer, and without pain to the object.

Among the evils resulting from great wealth and a very high state of civilisation, there are, we imagine, but few observant people who will have any hesitation in reckoning a too great propensity to sedentary occupations. In the case of most studies, sedentary application is necessary, and when it is reflected that those of youth are far more numerous, though more simplified, at the present time than they were formerly, it can scarcely fail to be admitted that any amusement of an active nature, combining information with its delight, is an extremely desirable boon to young students.

Though we have hitherto spoken only of young students, we would by no means confine to them our assertion of the value of botany as a healthful amusement. With the increase of wealth and commerce comes an increase of every description of sedentary employments, and hence arises a terrible host of dyspeptic and pulmonary disorders, weakening the human frame, and giving to the "human face divine" a terrible and almost cadaverous pallor. Now it unfortunately happens that in precise proportion to the urgency of their need for exercise, are men of sedentary business disinclined to making exertion; and a resident in a large town having the good of his fellow-creatures really at heart, can scarcely fail to be shocked every fine evening, by seeing mechanics sauntering direct from the confined shop, or heated manufactory, in which during the whole day they have been inhaling an atmosphere deficient of oxygen, and charged with

particles injurious to the lungs, not to the healthful and airy walks in the suburbs, but to the filthy tap-room, reeking with the fumes of tobacco and of liquors, deleterious under any circumstances, but doubly deleterious from being shamefully adulterated. We admit, and we do so with very real gladness at the fact, and admiration of the cause, that English artisans are now far less prone than they were even a few years ago, to stupefying and poisoning themselves with strong drink. We well know that vast numbers of them find in the cultivation of the mind a useful and pleasurable, as well as economical substitute for the old practice of drunkenness, and it is by no means the least of our pleasures to know that though this work has, from its very commencement, sedulously shunned all the topics which used to be thought "popular" among the artisans of England, we have a very large and perpetually increasing number of them among our readers. Other cheap works, addressing themselves still more directly to adults, and aiming less than we do at furnishing chiefly such matter as is likely to prove useful and interesting to the young, circulate among them in vast numbers, and there is scarcely a considerable village throughout the country which has not its library and reading-room: a town destitute of such important necessities we deem it impossible to name.

All this is very cheering. It is delightful and hopeful to find the intellectual fast putting the merely and injuriously sensual in abeyance. But while we devote ourselves with all zeal to the mind, we must not forget that we have bodies also; and while we exert ourselves to nourish the one with profitable and pleasurable stores of thought, let us not wholly neglect to supply the other with its necessary pabulum of air and exercise.

Now it seems to us that the chief reason why persons accustomed to sedentary occupations so rarely use their leisure in healthful pedestrianism, is the reason which the corpulent and good-natured author of "The Seasons" gave for not having risen even at the preposterously-late hour of eleven o'clock, A.M. "Young man!" said the recumbent poet, turning luxuriously and drowsily round, "I hae nae mootive!" a reply truly worthy of the imperturbable poet, who at another time was found standing by a peach-tree, and eating its luscious fruit, but with both hands stuck in his pockets, to pull the fruit, and then et it, being a supererogation he never dreamed of.

It might seem, indeed, that languid frames, bad digestion, and pallid countenances, might furnish sufficient motive for seeking strength and health—but strength and health unfortunately are seldom estimated at their real worth, until

* Dumarsais, in America, is the popular author on this plan, and our transatlantic brother editors speak of that gentleman as the inventor of it: they are evidently unaware that Milton and Locke had recommended it, and that Ascham taught Queen Elizabeth upon it.

they are utterly beyond our reach. It is all very well to call such neglect upon such an important point, foolish; but calling names never yet reformed the world; and instead of bestowing sharp censure upon folly, it will be infinitely better to beguile and persuade into a wiser and better course. With the great majority of mankind, the prevalent motive must be immediate; abstract principles and prospective advantages being either doubted or neglected, considered either in the light of mere dogmatical assumptions, or in that of mere truisms, not to be applied to any real and practical good purpose.

It is of importance then to give both to studious youth and to adults engaged in sedentary pursuits a seducing motive for spending a portion of their leisure time in healthful exercise; and we know of nothing better calculated to allure to enjoyment, and at the same time to conduce to health, than botany. The very same man who would hesitate about "taking a walk," though told that exercise is good for his bodily health, will take a pretty long walk for the sake of finding some new specimen, or observing some new phenomena. He has an end in view; and what under other circumstances would be to him an extremely dull and fatiguing excursion, derives from his motive an interest and an excitement which is as wholesome to his mind as the actual pedestrian exercise is to his body.

Sincerely believing that very many of the most distressing complaints arise from want of a sufficiency of air and exercise, we should even upon this single ground recommend the study of botany to be introduced into all schools, but more especially into schools for the other sex, whose amusements as well as employment are more sedentary than those of boys.

But there are very many other benefits derivable from this study, besides the health-promoting exercise. Though a beautiful, and, when properly taught, a quite sufficiently easy science, there is no "royal road" to it; careful observation of the most minute particulars of form, colour, and arrangement, is absolutely necessary at every step of the student's progress; and every one who has ever really studied will easily appreciate the value of the habit, and the power which this kind of training in one point gives to the mind on all points.

While the study of this science benefits the body and the intellect, it is also well calculated to improve the moral character. The regularity, the design, the beautiful adaptation discovered equally in the commonest weed and the most admired and valued plant, cannot fail to aid in keeping the mind awakened to the power, wisdom, and benevolence of the Deity; and the contemplation of the beautiful and the wonderful invariably and infallibly tends to make the good better, and the bad less bad.

Hitherto we have alluded only to the incidental advantages of the study of botany; but besides these, and the value of the power of knowing, independent of health, moral and intellectual training, and the pleasure of being able to look discerningly upon what to the untaught eye is as indistinct and incomprehensible as a printed book to him who is as yet ignorant of the very alphabet; independent of all these, botany has various and important practical uses, and of these we must say a few words, though of course we are well aware that those uses are not to be the motives to a general study of botany, any more than professional authorship should be the motive to the study of general knowledge.

Excepting astronomy, we know of no science which is better calculated to impress the young mind with a deep and reverential sense of the power, wisdom, and goodness of

God, nor one, except perhaps music, which can so soothingly exert an influence over the mind, to the dispersion of all the more violent and unamiable feelings.

To these great advantages, and those pointed out in our former article, botany adds the excellent quality of being easily mastered, and of requiring more exercise in the open air than, after the elements have been acquired, sedentary perusal of books. A good and simple Introduction having been fairly and thoroughly studied, occasional reference to larger works will afford the young student all the aid that he or she can require. There are, it is true, a great number of hard names to be learned and remembered, but even these may be rendered comparatively a light task, if writers of elementary works will take the trouble to analyse these words into their components, and literally translate them. Latin and Greek words, when thoroughly understood, will be quite as easily committed to memory, and retained there, as English words; and it seems to be not a little absurd to hope that words, to which no distinct and vivid meaning has been attached, shall be remembered as faithfully as the thoroughly-understood vernacular.

In all elementary works, then, there must be an ample glossary of the scientific terms. Specimens should, of course, be preserved, but the pencil should be freely and perseveringly used, the minute examination necessary to making an accurate copy having a value too great and too obvious to be for an instant misunderstood by any one who has any experience in teaching. For a good representation of the forms of leaves and stems, the following method, practised by some, but perhaps not generally known, is extracted from the Artist's Assistant. "*To obtain the true shape and fibres of a leaf.*—Rub the back of it gently with any hard substance, so as to bruise the fibres, then apply a small quantity of linseed oil to their edges; after which press the leaf on white paper, and, upon removing it, a perfectly correct representation of every ramification will appear, and the whole may be coloured from the original."

We trust we have said sufficient to recommend to the liking of our readers a pursuit so acceptable to all, and which, while favourable to the development of both the mental and the bodily energies, is one of the least expensive of all amusements, and is especially, from its elegance, fitted to be participated by the other sex. In an early future Number we shall give a brief but sufficient sketch of the elements of this beautiful science, and we trust that not a few of our readers will be induced to make it their companion and "guide," when taking their first botanical ramble through the verdant environs of town or hamlet.

(To be continued.)

AN EXPLANATION OF THE BUDDHISTS.

BUDDHISM, though once very prevalent in the Deccan, is now chiefly flourishing in Ceylon, and in Siam and Pegu.

Though the Brahmins in general are violently opposed to Buddhism, they are very far indeed from being agreed as to who Buddha, or Gaudama, was. His statues and pictures display curled hair and features very different from those of the Hindoos,—a fact which gives considerable weight to the opinion which many of the Brahmins entertain, that Buddha was, in fact, a foreigner, and an intruder. Others of the Brahmins, however, and with almost equally good reason, assert that Buddha and Vishnu are one; for Vishnu is actually called by this name in one of his incarnations, in which, as the religion of Buddha does, he prohibited the shedding of blood, even in sacrifices.

The rahan, or priests of Buddha, whom the common people call Talapoins, are tolerant, so far as relates to abstinence from proselytizing and persecuting for opinion's sake; but here their tolerance ends: they believe Buddha to be the only true deity, and their religion the only one by which men can be saved.

According to their notion of their deity, he was at first merely human, but at thirty-five years of age underwent a mysterious deification, and having preached his law and commandments to his people for forty and five years, then ascended to *niebau*, i. e. heaven.

The commandments of Buddha are five in number: the first prohibits slaughter of any kind, whether of an insect, or of the noblest animal; the second prohibits theft; the third prohibits adultery; the fourth, lying; the fifth, the use of intoxicating liquors. If we except the ridiculous extreme to which a right feeling is pushed in the first of these commandments, it is impossible not to allow considerable personal merit to the prohibitory commands of Buddha. In his exhortatory commands, however, the cloven foot peeps out in the almost exclusive emphasis laid upon the merit of almsgiving to the priests of Buddha.

Among the absurd notions propagated by these priests is that of a succession of worlds. One, they say, existed long, thousands of years ere ours; ours will be succeeded at a vast distance of time; and so it will be through all time, the destruction of each world being certain, and equally certain its being succeeded by another. To render this dogma the less unpalatable to their duped followers, they allow a prodigious number of years to the existence of each. Fire, water, and wind, are the agents successively employed in destroying the worlds. When the first is the agent, men and beasts are slain by a drought, which continues through the rather unnecessarily long term of one hundred thousand years; the sun and moon then disappear, and are replaced by two new suns. One of these is constantly above the horizon, until all the rivers and lakes are dried up by the intense and unvarying heat; several new suns then make their appearance; the earth, and the planets which are inhabited by the genii or spirits, are set on fire. Rain and wind perform their destroying parts in the same progressive manner; but the wind destroys only one world, and the water only seven, while fire consumes the great number of fifty-six.

Like the Hindoos, the Buddhists believe in the metempsychosis; but the Buddhists believe that every human soul

passes into a man, a brute, or a *nat*, i. e. genius or spirit, of which last there are as many as six classes, each of which has its peculiar functions and services.

Absurd as much of the religion of the Buddhists must of necessity appear to the more enlightened people of England, the priests contrive to extract from this heap of absurdity and sense, truth and imposture, an immense amount of profit. They live apart from society, like the monks of Catholic countries, and the lay Buddhists deem it a most important and serviceable duty to found and maintain residences for them. Many of these are not merely furnished with every thing that can contribute to the comfort of the priests, but also with the most expensive articles of luxury. In their dress and habits, however, these priests display a very prudent simplicity, and Dr. Buchanan says, that when he visited the *larado*, whom we may call the Buddhist pope, he found him quite as simply and cheaply attired as any of the common people who prostrated themselves before him, and earnestly solicited his benediction. The priests, too, are unquestionably entitled to the praise of being hospitable, so much so, that they have usually houses near their own, on purpose for the shelter and refreshment of poor travellers.

Among the many privileges of the priests of Buddha is the singular one of saving from execution any criminal whom they may condescend to lay their hands on—a privilege which, it is said, they humanely exert on all proper occasions.

The priests of Buddha act the part of instructors to their people, teaching them, besides writing and reading, such amount as they deem fit for them of geography and history, and also take great pains to see that youth are put in the right way to provide for their own subsistence.

When a young man desires to become a priest of Buddha his friends must make some valuable presents to the priests, and the young candidate, handsomely dressed in velvet and gold, is led in procession for several successive days, attended by his own relations, various public officers, musicians, dancers, &c. When this cavalcade has paraded the public places for as many days as the established rule of admission requires, the candidate is presented to the grand assembly of the priests, his rich garments are taken from him, and replaced by the plain yellow dress peculiar to the fraternity into which he is now entering; his flowing hair is severed from his head with great form; and he renounces for ever all family connexions and all worldly pursuits.

NO. V.—SELF-INSTRUCTOR IN MORALITY.

THE NECESSITY OF SELF-RESPECT.

THE Arabians, however much they may in many other respects be inferior to the highly-civilized people of Europe, are wondrously superior to us in the variety and force of their national proverbs. So abundant, indeed, are these, that we doubt not that a tolerably long conversation could be carried on by two or more Arabians, without either of the interlocutors using any other language than that of the current and familiar proverbs.

One of these proverbs says, pithily and shrewdly, "Make chaff of yourself, and chickens will feed on you." In this proverb there is much more of practical and important wisdom than at first sight meets the eye; indeed it strikes at the very root of an error which has made shipwreck of the hopes of many a deserving and able man.

Vanity and self-sufficiency, we need scarcely say, will be among the last qualities to obtain our recommendation, or even our tolerance. They are hateful and ridiculous in themselves, and the display of them rarely, if ever, fails to entail hate or ridicule upon their possessor. Furthermore, they arm society against even just pretensions. Nor is this altogether so unjust as at first sight it may appear to be. Society does not consist solely of philosophers; the great mass of mankind have other occupations for their time than that of diving below the surface of manners to discover the actual state of sentiment and motive; and as all incapable and vain men are vehement and loud in their assertion of their own peculiar merits, we must not wonder that all who are vehement and loud in self-commendation are supposed

to be incapable and vain. If we are unjustly so deemed, we must blame, not society, but ourselves, for society only judges of us by the indications with which we furnish it. But between absurd self-conceit and absurd diffidence there is a wide gulf; and it is almost as important, speaking with reference to our own interests, to avoid the one extreme as the other.

Ready as mankind are to turn with disgust and incredulity from the man of overweening pretensions, they are no less so to give full credence to those who undervalue themselves. They cannot conceive why a man should speak falsely *against* himself, and if *he* say that he has no ability or value, how can *they*, consistently with common sense, set a higher value upon his services than that which he himself sets upon them.

The slightest reflection, indeed, might teach us that this must of necessity be the case; and yet nothing is much more common than to hear people proclaiming their own inability, *i. e. pro tanto*, their own worthlessness. Some do this, perhaps, in mere love of hearing themselves talk; a very few, in sad and silly sincerity; but the great majority of self-censurers are vain people, angling for applause, or designing people, endeavouring to enhance their value. As for these last, it is not worth while to address any remonstrance or advice to them, their low cunning invariably producing its own peculiar and appropriate punishment, in the fact that their auditors uniformly take them at their word. But we would most earnestly advise young people to set a just value on themselves, their abilities, and their time. What is given away is rarely considered of any value; and what is sold at an unusually cheap rate, is usually supposed to have some secret and important defect. And this holds true quite as much with respect to all sorts of services and business, as with respect to all sorts of merchandize and manufactures. Beware, therefore, never to suffer any one to assume unjustifiable superiority over you, and equally beware of too pressingly tendering services; for in either case you will find it exceedingly difficult, if not absolutely impossible, to obtain any thing like a just and fair appreciation of your general merits, or of your particular services. Nor are we to be surprised at this; for, as we have already pointed out, the great mass of mankind have something else to do besides diving below the surface of manners; and we need only scrutinize our own feelings towards others to discover how much the demeanour and conversation of a man influences us in forming our opinion of him; having done this, a very slight exertion of our common sense will teach us to abstain from blaming others for the operation of an inevitable principle. Instead of acting so absurdly, we may take that principle as a guide to success; for as surely as we may injure and degrade ourselves by ill manners, and by ill-judged conversation, so surely may we serve and elevate ourselves by their opposites.

Until much and painful experience impresses the importance of setting a due value upon themselves, few reflect upon it, and still fewer reflect upon it and yet avoid the opposite extreme. Long observation and long experience, valuable instructors as they are, teach sternly and severely. Happy he who will consent to be taught by the reasonings of others, rather than by the painful inflictions of his own experience!

TOTAL ECLIPSE OF THE SUN IN 1724.

A TOTAL eclipse of the sun has not been visible in this country since the above date, and will not be again visible

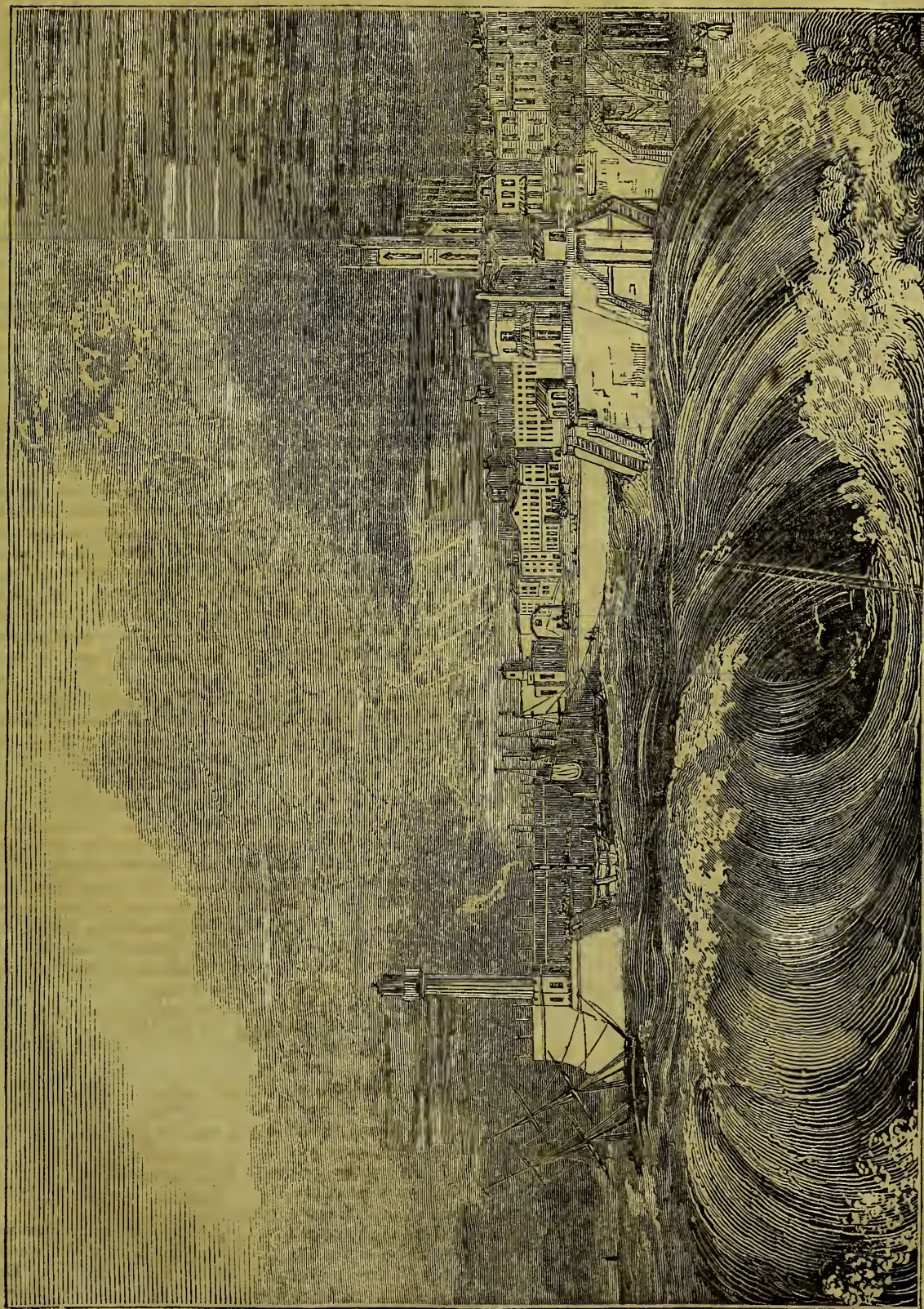
during the present century. Millions of our compatriots, consequently, have died, and millions more must die without an opportunity of witnessing this striking phenomenon. Under these circumstances, the brief account which we subjoin, will doubtless be acceptable to our readers; it is abridged from the long and graphic account contained in a letter from Dr. Stukeley to his friend the celebrated Dr. Halley.

Dr. Stukeley was particularly anxious to observe the circumstances attendant on the eclipse, with an attention and accuracy proportioned to the grandeur of the phenomenon, and he very judiciously chose as his situation for doing so Haraden-hill, a lofty eminence due east from Stonhenge avenue, at Salisbury Plain. In front of him stretched the extensive and wild plain; to the west rose Clay-hill, which, being near the central line of darkness, gave sufficient notice of its approach. At half an hour past five in the afternoon the Doctor perceived the commencement of the obscuration, and when the sun's body was half shaded, a fine circular iris made its appearance, the colours of which were beautifully perfect and distinct. For a time the sun wore the sharpened appearance of a new moon, and while this appearance continued, the sky in that part was tolerably clear. But the iris soon disappeared, Clay-hill in the distance became obscured, and a thick palpable darkness came on. So dense was the gloom of this point of time, that the very place of the sun was no longer to be discerned; the horses of the Doctor and his companions trembled violently, and the very birds and insects were mute; the silence all around was as perfect and as awful as though the sudden privation of the beauty-producing light had stricken a deep and a solemn terror into the very heart of nature. The Doctor says, that, at this time he seemed to "feel the darkness drop down like a great mantle."* Though his companions were close to him, the Doctor could only with difficulty discern their countenances, which had a yellow, ghastly, and startling appearance, which he describes as having been quite dreadful to look upon. When the sun was totally eclipsed, both sky and earth were covered as with a funeral pall; and our author describes the effect of the utter darkness to have been "beyond all that he had ever seen or could picture to his imagination, the most tremendous spectacle." In the sun's place there at length appeared a small lucid spot, and from it ran a narrow rim of faint brightness, traversing from west to east, and in about three minutes and a half from this appearance, the hill tops changed from black to blue, the horizon gave out the grey streaks proper to the morning's dawn, and the larks and other birds sprang joyously into the air, carolling aloud, as if in rapture at the sudden and welcome termination of the brief but gloomy night.

The Doctor had been an eye-witness of the eclipse of 1715, but that of 1724 was, in his judgment, far more impressively solemn.

INDIAN TOBACCO.—India produces some good tobacco, though in small quantities. There is a kind grown to a very limited extent in the northern circars, and converted into snuff at Masulipatam, on the coast of Coromandel. This snuff is highly valued in England. Some good tobacco is also raised in Bundelcund. Capital, knowledge, and care, are probably all that are wanting to render the production of tobacco of marketable quality more general.—*Thornton's India.*

* Having in his memory, no doubt, the sublime expression in Exodus, "a darkness which might be felt."—*Ed.*



MARGATE, ISLE OF THANET.

MARGATE

FOREIGNERS are extremely fond of satirizing the English propensity to melancholy and money-making; yet we think that if they would take the trouble to look observantly upon certain of our watering-places they would feel obliged to confess that we have no mean genius for mirth and money-spending.

Like Brighton, the now large and populous town of Margate was, even within fifty or sixty years, a mere village of fishermen; but its beautiful situation, in a picturesque bay, on the northern coast of the Isle of Thanet, has caused it to be enlarged and improved from time to time; and the cheapness and dispatch with which steam vessels can perform the distance from town,—only seventy-two miles,—cause thousands of residents in the metropolis to go there every week during the summer.

Most of the old and mean houses of Margate have disappeared; and though the town is partly built on very high ground, and part in a valley to the sea-ward, and has, consequently, a rather irregular appearance, the houses are, for the most part, exceedingly handsome. Cecil-square and Hawley-square, especially, are very handsomely built. In the former of these are the assembly-rooms. Recently the limits of the town have been found so inadequate to the reception of the multitudes who flock thither in the season, that new buildings have sprung up in every direction, most of them being appropriated to the purpose of lodging-houses. In July, August, and September, the streets of Margate are as much thronged with fashionably dressed company as Regent-street, in London, at the height of its season.

The *Pier of Margate*, a magnificent and costly stone structure, was commenced in the year 1810, and completed, at an expense of 60,000*l.*, by the year 1815. It is upwards of 900 feet in length, and about sixty in its greatest breadth; and being well gravelled, and very brilliantly lighted in the evening, it is an extremely fashionable promenade, where company can at once inhale the healthful sea breezes, and listen to the performance of an excellent band. Promenaders are admitted at the low rate of a shilling a month, or a penny a day; but the company to which it belongs levy the unwisely exorbitant sum of two shillings upon every person who embarks or disembarks there. Surely they ought to be aware that at a smaller individual charge they would realize a far greater aggregate profit!

In 1824, a spirited inhabitant of Margate, named Jarvis, pointed out the inconvenience of landing, when the tide was out, and the steamers could not make the pier. At this gentleman's suggestion, a substantial wooden landing place was erected, which, besides its more important uses, forms a very pleasant promenade.

Hotels, as may be expected, abound in this populous and prosperous town; and these are of all the necessary grades, to suit the various fortunes of the visitors. The chief and most splendid amongst them is the Royal Hotel, in Cecil-square. Besides the machines for bathing in the sea, there are, in High-street, at the bathing-houses, warm salt water baths. The *Clifton Bath* is cut in the chalk cliff; and rooms, and a terrace are thus formed, which are delightfully shaded from the fierce rays of the sun, while, at the same time, they are thoroughly visited by the salubrious breeze from the sea.

The *Tonn Hall* forms one side of the market, which was built in 1820, but on a scale far too limited for so populous and important a place.

Margate has two churches: the old one stands on the

south-east side of the town, and its interior contains some remains of Anglo-Norman architecture. It is dedicated to St. John the Baptist.

The *New Church*, dedicated to the Holy Trinity, is a handsome and spacious structure, which was consecrated in 1829. Its eastern window, of stained glass, is considered one of the finest in the kingdom.

Besides these churches, there are various places of worship appertaining to different classes of dissenters.

We must not omit to mention the libraries of Margate. These are very numerous, and most of them, in addition to supplying books, periodicals, and newspapers, are open in the evenings for one-card loo and music: the prizes of the winners at loo being toys or trinkets to the amount of the collective stakes.

The chief of the libraries is that at the corner of *Hawley-square*. The library and shop form a square of above forty feet, crowned by a light dome, whence depends a magnificent chandelier. This fine apartment is greatly frequented. Besides the libraries there are various other public lounges, which are tastefully arranged and much resorted to; and there is a very handsomely fitted up theatre, at which during the season some of the most eminent of the London performers are engaged.

The walks around Margate are delightful. By one of these, at about two miles' distance, you reach *St. Peters*, a noble garden, where visitors are allowed to promenade in reality without cost, for though they pay a shilling on going in, they are furnished with refreshments to that amount. A public breakfast is given here twice a week. A cold collation with tea and coffee is supplied on these occasions at the moderate charge of 2*s.* 6*d.* per head, and nearly a thousand visitors have been known to pay for their admission in a single day.

At *Tivoli Gardens*, which are only about half a-mile from Margate, there is an excellent tavern, concert-room, and a Chalybeate spring; and the gardens are, in themselves, one of the most lovely spots to be met with even in the lovely Isle of Thanet.

There are in the neighbourhood numerous minor places of the kind, but our limits will not admit of our giving any detailed account of them.

Margate was undoubtedly a fishing station at a very distant date; for Leland makes mention of its pier, which, even in his time, was in a very ruinous condition from its antiquity.

Taken as a whole, Margate is one of the most delightful of all our watering-places; and knowing how potent an influence the cheerfulness of the mind has upon the health of the body, we think it a place which the invalid can scarcely fail to visit without great benefit to himself.

Many writers, especially writers of prose fiction, have ridiculed the idea of invalids, deriving any benefit from being annually congregated in gay and bustling towns, where, on every side, some new pleasure attracts their attention. Such places, say the writers to whom we allude, are fit only for the robust votary of dissipation, and calculated even to render him an invalid, if too long abided in.

Like most of the bitter remarks which make what people choose to call satire, those, on the tendency of "watering-places," have much truth, and not a little falsehood. On the one hand, it is impossible to deny that at watering-places, as every where else, pleasure may be followed too perseveringly and too far; and more especially all those which cause numerous companies to remain in crowded and heated

rooms, until unreasonable hours for the night. But there is no necessity of any sojourner at a watering-place being guilty of any such absurdity as that of mixing in pursuits while ill, which would be any thing but serviceable to even the rudest state of health. Common sense ought to prevent any one from being silly enough to sacrifice health for mere pleasure; and, especially, when at watering-places there is an abundance of healthy as well as elegant amusements. The libraries; the promenades by the sea-side; inhaling the sea-breezes; the ride or the walk to some beautiful vicinage; the sail on the sea; or the telescopic survey of the vast expanse; — all these may surely compensate for the heated atmosphere of the crowded theatre, and for the giddy whirl kept up in the close ball-room until day break.

Avoiding personal participation in pursuits injurious to health, residence in a place of bustling pleasure seems to us to be infinitely well calculated to benefit those who are in search of health; for the bodily health depends far more, ultimately, upon the state of the mind than people in general are apt to imagine; and surely there is nothing better fitted to wean the mind from sadness and pain than our being surrounded by light hearts and glad faces.

Undoubtedly, however, there are some states of ill health in which even the mere contact with the bustle and gaiety of a very gay town may be undesirable. In such cases Margate's near neighbour and rival, Ramsgate, will be found an exceedingly desirable retreat.

Ramsgate is situated at about five miles south from Margate, and commands extremely fine sea views. It is visited by far more select company than Margate; the amusements are of a more quiet kind, and there is altogether a higher style among both the residents and the occasional visitors. The assembly-rooms are usually very well and fashionably attended: they form a part of the Albion Hotel. There are

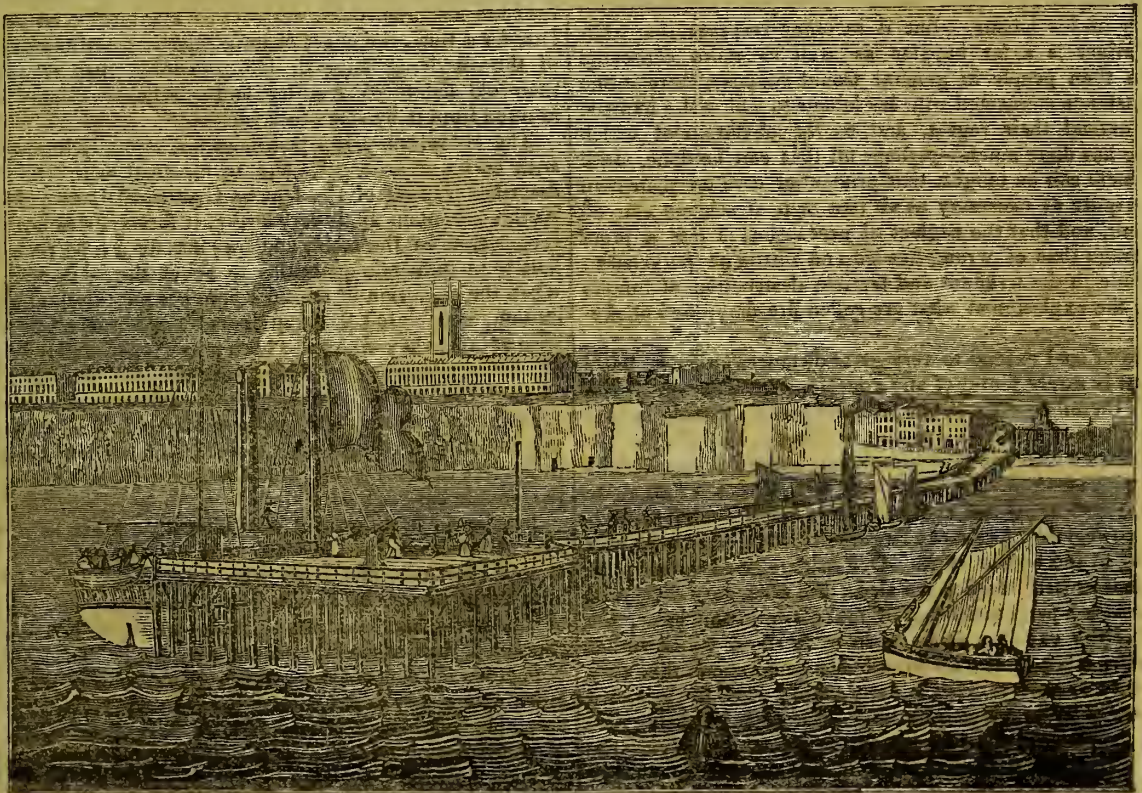
many libraries in the town. At the chief of them, kept by Messrs. Sackett and Fuller, and situated at Sion-hill, a concert of vocal and instrumental music is given every evening during the season. There is a very good theatre here; and, as at Margate, the most eminent London performers are occasionally engaged.

The bathing accommodations of Ramsgate are complete and admirable; and for persons of a quiet turn, it would not be easy to point out any watering-place superior to this in all the elements of comfort and cheerful but rational enjoyment.

Like its neighbour and rival, Ramsgate was formerly a mere fishing station, but possessing a spacious harbour, it gradually became a place of great trade to Russia and Turkey. The harbour has been greatly improved, and is now capable of affording shelter to vessels of five hundred tons burthen. The pier, constructed of Purbeck and Portland stone, is very justly celebrated; it extends nearly eight hundred yards into the sea, and is one of the most magnificent works in existence of the kind. Having so excellent a harbour, a capital dry dock, and all convenient warehouses, Ramsgate, place of pleasure though it is, is also a place of trade of no mean rank.

The title of "Royal," borne by the harbour of Ramsgate, was conferred by his late Majesty George IV., who, on visiting his Hanoverian dominions in the year 1821, both embarked and disembarked at this place. In commemoration of the honour conferred by his majesty, a subscription was raised among the inhabitants and visitors for the erection of a monument. It is an obelisk of granite, two thirds of the size of the larger of the two at the entrance of Thebes in Upper Egypt. On the side to the sea-ward is the inscription,

TO GEORGE THE FOURTH,
KING OF GREAT BRITAIN AND IRELAND.



View of the Pier at Margate.

During the season there are two or three steam vessels every day from the tower of London to Margate and Ramsgate; but for the information of those who are not partial to that mode of conveyance we subjoin the following notice of the coaches to and from both those places and other towns on the coast.

Coaches to London leave Margate every morning at nine and ten, and evening at half-past six: also for Sandwich, Deal, and Dover, at half-past eight and nine in the morning, and four in the afternoon, through Ramsgate.

Fowler's Coaches leave Ramsgate for London every morning at nine o'clock, and in the evening at half-past six, returning in the morning at seven, and evening at six o'clock; for Sandwich, Deal, and Dover, and from thence along the coast to Brighton, every morning at nine, and evening at five.

COAL MINES,

AND THE EXPLOSION OF THE FIRE-DAMP.

At first sight the occupation of a miner would appear to be one of unmixed misery, pursued as it is far below the surface of the earth, and far beyond the reach of the cheerful daylight; but in truth, use, which the proverb very truly calls second nature, makes the miner to the full as cheerful while working deep in the bowels of the earth, as when at leisure in the neat and snug cottage which his honest and well-remunerated industry provides for the shelter of his family; and he would probably find some difficulty in believing any one who should tell him that a stranger could possibly err so widely as to suppose happiness to be in any degree dependent upon the super or sub-terranean locality of his labour. But if in other respects the well-paid miner is a far happier as well as more contented person than people in general would suppose, there is one circumstance connected with his labour to which the humane must extend their regret, and to the obviation of which science has done much—perhaps all that can be done, until the miners can be taught, that prudential care on their own part is quite as necessary as all that men of science can do for them, and that the neglect of precaution is less a proof of courage than of wrong-headed and obstinate perversity: we allude to the frequent and terrible destruction of human life by the explosion of what are called fire-damp and choke-damp.

Beds of coal extend to very great distances laterally, but a stratum is rarely found of any considerable thickness. The miners therefore work in the lateral direction, taking care to leave pillars of the coal standing to support the roof of the apartments which are thus excavated. One shaft supplies the mine with air from above, and another allows the foul air to escape; the draught of the latter shaft being rendered efficiently powerful by means of a large fire which is constantly kept burning at the bottom of it. Our readers need scarcely be told, that as heat rarefies the air in the ascending shaft, and thus causes a perpetual drain of foul air from the mine, the place of the expelled air is taken by fresh air which rushes down the other shaft; for in order to comprehend this they have only to observe what is daily taking place in their own apartments while a fire is burning—the principle being precisely the same in the two cases; the chimney supplying the place of the shaft that carries off air, and the door or window supplying the place of the shaft which admits air.

Even in the deepest mines there is, by this simple expedient, a sufficient provision of fresh air constantly arriving to enable the men to work without feeling any sensible or important difference between the atmosphere they are in, and that which is found on the surface of the earth; but, unhappily, there are two very destructive gases, which form imperceptibly, but rapidly and surely, and from these the poor miners are exposed to great risks. What is called the fire-damp is a light gas which floats high up in the mines, and which explodes with great violence the instant it comes into contact with a flame. It would seem that every instant produces a portion of this gas, but as long as a very strong current of fresh atmospheric air is kept passing through the mine, no accumulation of fire-damp takes place to an extent sufficiently great to cause explosion. This being the case, it would appear to be an extremely simple affair to keep a mine free from all danger as far as fire-damp is concerned. But the matter is by no means so simple as it at first sight appears. In the first place, the shape of the mines, branching off laterally into galleries and chambers, renders it exceedingly difficult to cause the current of fresh air to pass with equal strength and efficiency into every part; and in the next place, constant familiarity with danger of any kind inspires men with such a degree of insensibility or indifference, that it is no easy matter to induce them to take even the simplest and least troublesome precautions for guarding themselves. Accordingly it is difficult beyond the comprehension or belief of persons not practically acquainted with mining to cause the hardy and fearless inhabitants of those lower regions to pay due attention to the vital point of keeping up a perfect and regular ventilation. Trap doors are left open, the fire in the foul-air shaft is allowed to go out, the fatal fire-damp accumulates unchecked and unnoticed, and suddenly a tremendous explosion takes place, by which, to say nothing about injury to property, numerous valuable lives are instantaneously destroyed. The terrible catastrophe has, for a time, the effect of increasing the care and attention of the surviving miners; but, ere long, they relapse into their old habits of security and carelessness, only to be aroused from it by some new accident.

The choke-damp is a poisonous air, strongly impregnated with carbonic acid gas, and is identical with the often-described vapour of the famous Grotto del Cave at Naples. As this poisonous air is very heavy, it forms a stratum at the very bottom of the mine, and does not for a long time accumulate in sufficient quantities to affect the workmen; but when the explosion of the fire-damp has put this fatal air into motion, and closed the trap doors by which it might otherwise escape, they who have been preserved from the violence of the explosion are almost certain to be suffocated. Strange that men who work with an explosive gas constantly accumulating above them, and a deadly poison as constantly accumulating beneath them, can be so fatally infatuated as to neglect the means by which to guard themselves against the double danger!

In May 1812 a dreadful explosion took place in a mine near Gateshead in Durham, and of one hundred and twenty-nine men and boys who were beneath at the time, only thirty-two escaped with life. The agony and distress of the wives and children of those who perished may be conceived, but assuredly cannot adequately be described. Numerous accidents of this sort occurring, some of them even more extensively destructive of life, various benevolent and accomplished men of science devoted themselves to the task of endeavouring to devise means of obviating the recurrence of such horrors. Dr. Clanny, Dr. Murray, Mr. Stevenson, and Sir Humphrey Davy, respectively invented lamps

calculated to afford the miners the light necessary for their subterranean labours, but at the same time to prevent the possibility of the flame coming into contact with the fire-damp. Of all these, the lamp of the last-mentioned gentleman is the only one which was found to be perfectly adapted to its purpose. It consists of a common lamp surrounded by a very fine and closely reticulated iron wire gauze. The openings are so fine that the flame cannot by any means pass through, but their closeness does not prevent a sufficient quantity of air entering to support combustion.

Of all the benefits conferred upon society by the fine genius and industry of Sir Humphrey Davy, this is without doubt the most important; and it is truly lamentable to be obliged to add, that though he has thus literally put the safety of the miners into their own hands, their heedlessness and hardihood are such, that they have, even since they possessed his admirable safeguard, neglected the use of it so

frequently as to cause very serious explosions to take place. The only remedy for such reckless want of caution must be found in the application, by the wealthy proprietors of mines, of a better police among the men; selecting from among the oldest and steadiest of them a sufficient number to patrol every part of the mines, with authority to discharge on the instant any man who shall be found neglecting proper precautions, and especially any found tampering with the lamp in order to procure a more vivid light. Establishing such inspectors at a liberal rate of wages while employed, but with the certainty of being inexorably discharged on the very first occasion of intoxication, want of vigilance, or conniving at the carelessness of the men, could scarcely fail to complete the triumph of Davy's safety lamp, and spare thousands of human lives which carelessness may otherwise destroy.

NO. VI.—SELF-INSTRUCTOR IN MORALITY.

INFLUENCE OF VIRTUE ON SOCIETY.

WE are firmly persuaded that there would be far less difficulty than there is in persuading men to lead virtuous lives, but for a very gross and general mistake made by those to whom persuasions on the subject are addressed. They think that in recommending them to be virtuous, we are recommending them to pursue a course hostile to their own interests, and destructive of their own pleasure. They think that their being virtuous may, indeed, be of service to all the rest of society, but will assuredly only tend to their injury; and accordingly we find that mere general exhortations to virtue are for the most part thrown away, being received often with anger, and still more often with a mixture of suspicion and contempt. A more egregious and dangerous mistake it would not be easy to make. Perfectly true it undoubtedly is, that society has an interest in the virtuous conduct of every one of its members, for it is one of the qualities of vice that its effects are diffusive. A criminal may know where he intends the effect of his crime to end, but where it will end it is beyond the power of man to predict. So far, therefore, and as relates to the force of example, society has a real and deep interest in the virtuous conduct of its members; but, as we shall presently take occasion to show, the interest of society is trifling compared to that of the individual himself.

In the prosperity, as in the virtue of its members, society has an interest; but does any man, on that account, shun the means of attaining to prosperity? Does any man neglect the means of securing ease and competence, because in doing so he benefits society by saving it from the inflictions of one desperado, or the dead, useless burthen of one beggar? It will at once be admitted that a man who could act so preposterously would be past all reasoning with, and only fit to remain out of Bedlam by virtue of a quiet demeanour. But it may be urged, *argumenti gratia*, that the cases of prosperity and virtue are not precisely parallel, for that though it is obvious enough that society has an interest in the universal diffusion of both, the individual has a far less obvious interest in virtue than in worldly prosperity. The objection, however, is founded upon the very fallacy to which we wish to rivet attention.

If worldly prosperity could confer happiness in despite of all other circumstances, there would be a far greater show of reason in the argument than there is. It might be said,

"Virtue may or may not be the fine thing you represent it to be; but *cui bono*? I am wealthy, and I find that wealth and perfect happiness are synonymous terms; whereas the virtuous poor man is quite obviously the most miserable creature we are acquainted with." But, to say nothing of the extremely uncertain tenure of worldly prosperity, to say nothing of the hourly exposure of the prosperous man to accidents which may in a single hour leave him penniless, houseless, and friendless; what happiness does he derive from his money bags and his hoards, when he lies on a bed of intolerable agony, certain that nothing on earth can afford him alleviation, until the arrival of that hour which he dreads even more than the most excruciating bodily suffering—the dark and troubled hour of death? Let him ask of his own heart, where is this all-consoling power of wealth, if the terrible hour shall come in which he shall bend, pale and trembling, beside the corpse of his only child?

Here is the self-interest of virtue; nothing can weaken its power to support and console. Wealth may be taken from us by fraud or force; we may be tortured by disease, or we may lose for ever in this world those who are dearest to us; but while we have the consolation of virtue we can never be wholly wretched. We feel what has happened to us has happened without our own agency, and is, however hidden from us the process, part of a system of good, and our conscience more than repays us in ease all that fortune has deprived us of in enjoyment and splendour. In a word, it is as impossible to make a really virtuous man completely unhappy as it is to make a vicious man completely happy. The former nearly always finds friends, and is never without that approval of his own conscience which no coldness of the world can counterbalance; the latter has no real friends in his prosperity, while his adversity never fails to be surrounded by foes; and far from finding consolation within his own bosom, he has no foe who can inflict half the misery upon him which is inflicted by the perpetual stings of his own conscience.

Moreover, there is another point of view in which every man is self-interested—in the ordinary and confined sense of that phrase—in being virtuous. To be virtuous, whatever fools may fancy, and thieves assert to the contrary, is the readiest and most facile road to becoming possessed of worldly prosperity. Goldsmith nowhere shows a more

profound knowledge of life and human nature, than where* he makes a man, whose whole life has been one continued scene of fraud, exclaim, "Ah! if I had bestowed only a twentieth part of the labour upon being honest, which I have wasted upon knavery, I should now be a prosperous and respected man."

In point of fact, the wisest and best, as well as the worst of men are equally found bearing testimony to the profitability of virtue. Lord Shaftesbury emphatically says, "I would be virtuous for my own sake, on the very same principle that I would keep my person clean, even if I were certain never again to see a human being." The philosophical—though on many, and not unimportant points mistaken—Shaftesbury here plainly alludes to the intrinsic and internal efficacy of virtue, as conferring that self-approval, without which all worldly advantages lose their value and all worldly delights their poignancy.

To the worldly value of virtue, perhaps no stronger testimony can be found, than that of the notoriously bad character Colonel Chartres, a man, who, according to the opinions given by all who knew him, was one loathsome moral leprosy. "I would give," said that consummately bad man, "ten thousand pounds for a good character; for I could make double the money of it."

Without virtue, in fact, no one can have character; and without character, no one can have success in his business, great or small; or friends, in that hour of need, to which all men are liable, and to which vicious men are peculiarly so.

Let no one, therefore, when exhorted to virtue, imagine that society is solely or even chiefly concerned in his reception of the advice; the direct contrary is the truth; it is he who chiefly, most directly, and at the earliest period, is to reap good if he embrace a virtuous course of life, and evil, if he cleave to a vicious one.

THE AVATARS OF VISHNU.

THE avatars, or comings of Vishnu, in a variety of incarnate forms, are differently reckoned by various authorities. Some make these metamorphoses of Vishnu upwards of a thousand in number; but all the more intelligent of the Hindus reject the greatest part of these accounts as spurious. By many Hindus, the avatars of Vishnu are numbered at twenty-four, but the number admitted by every one is only ten; nine of which are passed, and the tenth is to occur in somewhat less than a hundred thousand years.

The first of the avatars of Vishnu is said to have occurred at the time of that terrible flood, of which every nation under Heaven has some traditional commemoration, more or less distinct. On this occasion, king Sattivraden and his queen being as distinguished for their virtue as their subjects were for vice, Vishnu transformed himself into a great fish, and in this shape acted as a rudder to the good king's ship, steering it clear of all the dangers which threatened it. To the benevolent object of preserving the lives of the king and queen, some believe that Vishnu added that of rescuing the sacred books from the bottom of the sea, whither they had been conveyed by a malignant fiend.

In the second avatar we find Vishnu in the form of a tortoise. The gods and giants being desirous of eating amourdun, a butter formed in the sea of milk, Vishnu advised them to transport into that sea a certain vast mountain. Around this they twisted the hundred-headed serpent, Adisse-

chen, and by violently pulling him round and round, gave the necessary charming to the sea of milk. But Adissechen, hundred-headed though he was, was not strong enough to bear this violent exercise; pained and enraged, he hissed with his hundred mouths, his eyes flashed lurid flames, and his forked tongue vomited forth a pestilential poison, the giants fled in dismay, and so did even the gods, with the single exception of Vishnu; he boldly stood his ground, seized upon some of the poison, and rubbed his body with it. The poison thus used made his body blue, on which account his images in the temples are usually painted of that colour. Encouraged by the boldness of Vishnu, the gods and giants returned to their work; but when they had expended another thousand of years upon it, they were alarmed by the rapid sinking of the mountain. At this critical juncture, Vishnu changed himself into a huge tortoise, and diving under the mountain, prevented its farther descent. Their labours were at length crowned with success. A procession made its appearance, closed by the physician Danouvandri, carrying a vessel full of the so much desired butter; the gods seized eagerly upon the vessel, and greedily swallowed every morsel of its rare contents. The giants thus defrauded of their fair share of the fruits of their labour, became violently enraged; and, dispersing themselves in various parts, they laboured with all their might to prevent mankind from worshipping the gods. It was this conduct on the part of the giants that led Vishnu to charge himself with the arduous task of warring against them.

In his third incarnation Vishnu took the form of a man with a huge boar's head. He took this form in order to attack Paladas, a giant who had rolled up the earth as though it had been a leaf, and carried it on his back to the bottom of the sea. Having killed the giant, Vishnu plunged into the sea, caught hold of the earth with his tusks, and brought it to its proper situation upon the surface of the water, putting here and there a mountain, where requisite, to preserve the equilibrium.

The fourth incarnation of Vishnu had for its object the destruction of the giant Ereniln. This giant had obtained from Brahma an exemption from liability to be put to death by either gods, men, or beasts. Having obtained so important a privilege, he became so insolently elated that he commanded that his subjects should pay divine honors to him as if he were a god. All complied with his absurd orders with the exception of his son, Pragaladen, upon whom both persuasion and threat, excess of kindness, and excess of cruelty, were alike unable to prevail to that end. On one occasion, the dispute between the father and son arose to such a pitch that the former, in the violence of his rage, smote one of the pillars of the apartment, exclaiming, "Would that this boasted god were here, that I might wreak my vengeance upon him!" He had scarcely pronounced the boastful words, when the pillar he had stricken flew open, and Vishnu, half man, and half lion, made his appearance. It was in vain that the giant exerted all his terrible strength. Though neither man, nor god, nor beast, separately, was to prevail against him, this unexpected mixture of all three, in the person of Vishnu, prevailed; the giant was slain, and Vishnu drank of his blood.

(To be continued.)

* In the "Vicar of Wakefield."

FOOD FOR SILK WORMS.—Silk-worms in India are fed not only on the mulberry, but also on the *palma christi*, or castor-oil plant, and several kinds of the laurel tribe.—*Thornton's India*.

No. II.—SELF-INSTRUCTOR IN BOTANY.

FLORICULTURE.

WE have elsewhere spoken briefly, but warmly, in recommendation of the study of Botany—useful as well as delightful even in the very process of studying. We are happy to see various signs of an increased attention not only to Botany as a science, but also to that at once innocent, delightful, and elegant recreation, gardening. One of the pleasantest of these proofs lies just now before us in the shape of a magazine* devoted to this pursuit, and containing a variety of useful particulars at a price—the expense of getting up such a work being considered—which is really almost incredibly low. In addition to a great variety of useful and interesting articles, descriptive of various flowers, modes of culture, &c. &c. we have in this handsome little work two finely executed plates; one plain, representing the Botanical Gardens at Sheffield,† and the other very beautifully coloured, representing three new flowering shrubs. From the description of one of these we give a specimen of the literary style of a work, to which, in conclusion, we very sincerely and heartily wish success.

“*MAHONIA REPENS*, (*Creeping-rooted Mahonia*.) Nat. Ord. *Berberaceæ*. (Linn.) Class. *Hexandria Monogynia*.—This very beautiful hardy shrub has been cultivated in the gardens and nurseries of this country for several years; but in consequence of its slowness of growth, it has but as yet been sparingly propagated, and is very little known. The figure here represented has been taken from a plant in the collection of Mr. James Barron, nurseryman, Sheffield. It is a branched evergreen, from one to two feet high, the leaves numerous, with from two to three pairs of opposite leaflets, and an odd one, roundish oval, irregularly spiny and toothed, a dullish green, with a degree of bloom upon them. The flowers are in racemes, mostly very numerous, of a rich yellow colour, and collected together at the extremity of the branches; each raceme or bunch of flowers is at first a scaly bud, and each little flower-stalk is subtended by a small green scale. In British gardens, it flowers in April and May, and, like all others of the genus, gives forth a peculiar luscious odour. It is a native of the rocky mountains of the west coast of North America. Besides the above, which is the most recently introduced species of the genus, there are three others equally ornamental—*M. nervosa*, *M. aquifolium*, and *M. fascicularis*. *Mahonia nervosa*, *nerve-leaved*, is found in pine woods near the Columbia River, on the north-west coast of North America; and was introduced into this country in 1822. It is an under shrub, remarkable for its dwarf stem, which rarely attains the height of ten inches, while its ample compound leaves frequently exceed fifteen inches in length. It is quite hardy, and will grow freely in a border of peat earth in a shady situation. —*Mahonia aquifolium*, *holly-leaved*, is also a native of the north-west coast of North America, and was introduced into the gardens of this country in 1823. In speaking of this plant in the ‘Penny Cyclopædia,’ Dr. Lindley says it is ‘perhaps the handsomest hardy evergreen we yet possess.’ When four or five feet in height, in a healthy state, and grown on a neatly kept lawn, this plant surpasses in richness and beauty any other shrub which we remember to have seen. —*Mahonia fascicularis*, *crowded racemed*, is a native of California, and was brought to this country in 1820. It is also

very handsome, but is rather tender, requiring the protection of a wall during winter. As an ornamental shrub it is therefore less interesting than the preceding.—The *Mahonia* are of slow growth, and difficult of increase. *M. aquifolium*, the handsomest of the genus, may be purchased at from 3s. 6d. to 5s. and the others from 7s. 6d. to 10s. each.

“The name *Mahonia* was given to this genus in honour of *Bernard M. Mahon*, author of the ‘American Gardener’s Calendar.’”

 THE FOLLY OF AMBITION, AND THE MISERIES OF IDLE NOTIONS OF LUXURY.

THE poor man’s son, when visited with ambition, looks around, and enviously admires the condition of the rich. He finds the cottage of his father too small for his accommodation, and fancies he should be lodged more at his ease in a palace. He is displeased with being obliged to walk afoot, or to endure the fatigue of riding on horseback. He sees his superiors carried about in machines, and imagines that in one of these he could travel with less inconvenience. He feels himself naturally indolent, and willing to serve himself with his own hands as little as possible; and judges, that a numerous retinue of servants would save him from a great deal of trouble. He thinks, if he had attained all these, he would sit still contentedly and be quiet, enjoying himself in the thought of the happiness and tranquillity of his situation. He is enchanted with the distant idea of this felicity. It appears in his fancy like the life of some superior rank of beings, and, in order to arrive at it, he devotes himself for ever to the pursuit of wealth and greatness. To obtain the conveniences which these afford, he submits in the first year, nay in the first month of his application, to more fatigue of body, and more uneasiness of mind, than he could have suffered through the whole of his life from the want of them. He studies to distinguish himself in some laborious profession. With the most unrelenting industry, he labours night and day to acquire talents superior to all competitors. He endeavours next to bring those talents into public view, and with equal assiduity solicits every opportunity of employment. For this purpose he makes his court to all mankind; he serves those whom he hates, and is obsequious to those whom he despises. Through the whole of his life he pursues the idea of a certain artificial and elegant repose, which he may never arrive at, for which he sacrifices a real tranquillity that is at all times in his power, and which, if in the extremity of old age he should at last attain, he will find it to be in no respect preferable to that humble security and contentment which he had abandoned for it. It is then, in the last dregs of life, his body wasted with toil and diseases, his mind galled and ruffled by the memory of a thousand injuries and disappointments which he imagines he has met with from the injustice of his enemies, or from the perfidy and ingratitude of his friends, that he begins at last to find that wealth and greatness are mere trinkets of frivolous utility, no more adapted for procuring ease of body, or tranquillity of mind, than the tweezer-cases of the lover of toys; and like them, too, more troublesome to the person who carries them about with him, than all the advantages they can afford him are commodious. There is no other real difference between

* The Floricultural Magazine.

† The curator of these gardens, Mr. Hancock, is also, we perceive, the able editor of the magazine.

them, except that the conveniences of the one are somewhat more observable than those of the other. The palaces, the gardens, the equipage, the retinue of the great, are objects of which the obvious convenience strikes every body. They do not require that their masters should point out to us wherein consists their utility. Of our own accord we readily enter into it, and by sympathy enjoy and thereby applaud the satisfaction which they are fitted to afford him. But the curiosity of a tooth-pick, of an ear-pick, of a machine for cutting the nails, or of any other trinket of the same kind, is not so obvious. Their convenience may perhaps be equally great; but it is not so striking: and we do not so readily enter into the satisfaction of the man who possesses them. They are therefore less reasonable subjects of vanity than the magnificence of wealth and greatness; and in this consists the sole advantage of these last.

They more effectually gratify that love of distinction so natural to man. To one who was to live alone in a desolate island, it might be a matter of doubt, perhaps, whether a palace, or a collection of such small conveniences as are commonly contained in a tweezer-case, would contribute most to his happiness and enjoyment. If he is to live in society indeed there can be no comparison; because in this, as in all other cases, we constantly pay more regard to the sentiments of the spectator than to those of the person principally concerned, and consider rather how his situation will appear to other people, than how it will appear to himself. If we examine, however, why the spectator distinguishes with such admiration the condition of the rich and the great, we shall find, that it is not so much upon the account of the superior ease or pleasure which they are supposed to enjoy, as of the numberless artificial and elegant contrivances for promoting this ease or pleasure. He does not even imagine that they are really happier than other people; but he imagines that they possess more means of happiness. And it is the ingenious and artful adjustment of those means to the end for which they were intended that is the principal source of his admiration. But in the languor of disease, and the weariness of old age, the pleasures of the vain and empty distinctions of greatness disappear. To one in this situation, they are no longer capable of recommending those toilsome pursuits in which they had formerly engaged him. In his heart he curses ambition, and vainly regrets the ease and the indolence of youth, pleasures which are fled for ever, and which he has foolishly sacrificed for what—when he has got it—can afford him no real satisfaction.

In this miserable aspect does greatness appear to every man, when reduced either by spleen or disease to observe with attention his own situation, and to consider what it is that is really wanting to his happiness. Power and riches appear then to be what they are, enormous and operose machines, contrived to produce a few trifling conveniences to the body, consisting of springs the most nice and delicate, which must be kept in order with the most anxious attention, and which, in spite of all our care, are ready every moment to burst into pieces, and to crush in their ruins their unfortunate possessor. They are immense fabrics, which it requires the labour of a life to raise, which threaten every moment to overwhelm the person that dwells in them, and which while they stand, though they may save him from some smaller inconveniences, can protect him from none of the severer inclemencies of the season. They keep off the summer shower, not the winter storm; but leave him always as much, and sometimes more exposed than before, to anxiety, to fear, and to sorrow,—to diseases, to dangers, and to death.

THE BOA.

Of all the serpent tribes, the various species of the boa are the largest and the most powerful, though they are without poison, and on that account, as well as from the comparative paucity of their numbers, far less injurious to mankind than many smaller serpents, which have poison fangs. There are several species of the boa found in Asia, Africa, and America, and some of them are forty feet long, and of proportionate thickness! It will readily be supposed that so enormous a creature finds little difficulty in overpowering even the larger animals, and there are on record wonderful instances of the enormous bulk of the creatures which, after breaking all their bones, they have contrived to swallow. At Java, for instance, a buffalo having approached a river, was in the act of drinking, when an enormous boa sprang upon and twisted his huge and scaly length around the astonished animal, crushing bone after bone with such force, that they were heard to break at every new compression with a report like that of a large pistol. Having thus crushed the body of the beast, the boa now proceeded to lick it all over, covering it with a glutinous liquor, to facilitate the act of swallowing. It then gradually sucked down the whole of the huge mass; and the throat of the gorged serpent actually looked, when the meal was completely swallowed, more than three times its usual thickness.

Though the boa is thus voracious when it does eat, it is exceedingly patient of abstinence. In fact, for several days after it has made one of its unconscionable meals, it lies in such a state of bloated and helpless torpor, that it may safely be captured or destroyed. It is fortunate for mankind, in the countries where this huge creature is found, that this is the case; for were it always tormented with hunger, it would depopulate vast tracts of country.

The Romans under Regulus were attacked by a monstrous serpent, which is thought to have been a boa, and it was not until a great number of the Roman soldiers were killed by the monster that he was overpowered, and even then he was crushed by an enormous stone hurled at him from a regular battering engine, such as was used in besieging fortified places. This immense serpent is said to have measured the wonderful length of one hundred and twenty feet!

Several boas have at various times been imported into this country, and we believe that both of the London Zoological Gardens have a specimen at present; but the length and bulk of such as have been exhibited in England, have been far inferior to those of which naturalists make mention, as may be inferred from the fact, that, instead of devouring a whole buffalo at a meal, these have been satiated with two or three rabbits or fowls, and have then required no further feeding for three weeks or a month, lying coiled up and perfectly quiet during the whole of that time.

STEAM COMMUNICATION WITH INDIA.—Supposing a very rapid communication between England and India to be necessary, it would be indispensable that it should be constant. Neither by the Euphrates nor the Red Sea could this advantage be attained. For several months in the year we could not expect to navigate the former, and the latter would be unapproachable during the prevalence of the south-west monsoon. It is not physically impossible for a steamer to make way against the monsoon, her progress must be very slow, and the wear and tear of the vessel and machinery ruinous. If effected at all, therefore, the voyage could not be performed with certainty, as to time, and the principal advantage proposed would consequently be lost. There is yet one most serious objection which applies to the two routes: they both traverse countries frequently visited by the plague.—*Thorn-ton's India.*

*View of the Maelstroom.*

THE MAELSTROOM.

In beauty this phenomenon is very far indeed surpassed by the famous cataract of Niagara; but if we follow Burke's explication of "the Sublime," (and who will venture to contradict the conclusions of that subtle and multifariously learned man?) and hold that, to the sublime, the terrible is an indispensable adjunct,* the first place, as to sublimity, must be yielded by all permanent natural phenomena with which we have as yet any acquaintance, to the truly terrible Maelstroom.

This mightiest of all known whirlpools is situated near Moskoe, an island on the coast of Norway, and its violence is such, that its roar exceeds in power that of the grandest cataracts, and may be heard, as if in angry threatening of the mariner, long before his fated ship is within the influence of its fatal vortex.

A whirlpool, as of course our readers are aware, is formed by the eddies of two or more strong tides meeting in a deep basin. The Euripus, for ever linked in history with the death of the sage Aristotle, and the Charybdis, near the coast of Sicily, were so much dreaded by the ancients, that the poets introduced them into their writings; but neither of these is at all comparable to the dreadful one which is delineated in our cut.

The appearance and mode of action of the Maelstroom will be better understood by a careful inspection of the cut

than by any verbal description. It is said to be fully forty fathom deep, and when tempestuous weather prevails in a certain direction, the suck of this dreadful gulf is capable of drawing in vessels, which are supposed to be as yet too far from the scene to be in any danger of its greatest and mightiest rage. Even the huge whale is, on such occasions, not uncommonly drawn, despite all his vast strength, into the foaming and thundering abyss, whirled hither and thither, now writhing in vain struggles in the crest of the howling billows, and anon plunged fathoms down into their depth, until a change of tide, which occurs every six hours, when, for a brief space, "the hell of waters" subsides into a comparative tranquillity, and the wrecks of its past violence are cast forth.

Woe to the luckless vessel which is once fairly within the influence of this inanimate monster of the deep! The little island of Moskoe looks tranquil and beautiful at a brief space, but brief as that space is, never shall it be traversed by that doomed ship! The roar of the waters is heard, and every cheek on board is blanched to the ghastly palor of death. The warning cry, uttered, alas! but too late,—"the Maelstroom, the Maelstroom!" paralyzes every limb of the hardiest and bravest of the devoted crew; and gazing with fixed starting eyes, clasping their hands in the very extremity of terror, the seamen know that their grave is within their view. Courage, skill, strength, all are useless; and even as their pale lips tremble in vain efforts to give audible utterance to the prayers felt and thought in that terrible hour, they are carried within the very vortex of their irresistible destroyer.

Such is the awful power of this greatest of all whirlpools, that when the succeeding tide throws upon the neighbouring coast any fragments of vessels wrecked in the Maelstroom,

* See Burke's Essay on the Sublime and Beautiful, which, though published at a very early age, and written at a still earlier, would have done him honour even in the very zenith of his fame. Of this work there are various cheap editions, and we would strongly advise all our readers to study it. They cannot fail to reap both delight and profit from the task.

those fragments are found jagged, as though deliberately notched with a saw,—with such tremendous force have they been dashed hither and thither upon the sharp crags composing the bottom!

ADVICE AND INFORMATION.

THAT shrewd but somewhat cynical writer, La Rochefoucault, pithily observes, that “nothing is easier than to give advice or more difficult than to take it.” Like many other of his sayings, this contains much truth and some error. Difficult to take advice, it unfortunately is; partly from ignorance, partly from the wilfulness of our nature; and in this difficulty is one of the great obstacles to human improvement. But we deny that it is easy to give advice. The French philosopher and wit was too attentive to the point and brilliancy of his *Maxims* to diminish either by stopping to define his terms; it was necessary to place the give and take in striking opposition, and he would not weaken the effect by making advice the subject of the latter, and merely idle gabble the subject of the former. To give advice really worthy of the name, is very far indeed from being so easy a matter; indeed, a very thoughtful and conscientious man will be far more likely to find difficulty in the character of a donor of advice than in that of its recipient. The greater his experience and the keener his observation, the more he will perceive the difficulty of exactly suiting his advice to all the circumstances of a case. A flippant and shallow man, to be sure, would see no difficulty at all in the matter; he would plunge at once *in medius res*, decide boldly and peremptorily, declaim hotly, plunge his friend or acquaintance into a scene or two of difficulties if attended to—and if so obviously wrong as not to be attended to, then, who so injured and indignant a gentleman as he!

In truth, to give either advice or information, even when perfectly and consciously well qualified to do so, is a task which requires very great and delicate management. Both the manner and the time must be judiciously chosen, if we would advise or inform acceptably and efficiently; and if the occasion be so pressing that we have no choice left us as to time, the delicacy and difficulty of our task are still farther increased; for then we by our own minds and conduct must do the work which, under other circumstances, we should have left to time and circumstance. We must prepare the temper as well as the mind of our auditor, withdraw his attention from other subjects by skilful and persevering, but imperceptible efforts, lead by similar efforts to the point upon which we desire to convince him, and then adapt our reasonings, tones, and manner to his known disposition and taste.

All this is very far from being a simple or, to an unpractised man, an easy matter. It requires great ability, great patience, and a great love of truth and well-doing; and to all these must be added that indescribable quickness of perception which is commonly called *tact*, and which is, in fact, the valuable result of that constant but quiet habit of observation, so strongly recommended by us in a former number. Without these qualities, whatever may be our probity, and however great and really valuable may be our stock of knowledge, experience, and judgment, we shall have but partial success, if any, in our endeavours at instructing the minds or ruling the destinies of others. It is not sufficient that we do wish them well; we must make our good wishes evident to them; it is not enough that we have excellent judgment, we must impress them with a belief of it. An important element of success in giving advice or information, is a judicious choice of time; and though it has already been

alluded to, it seems to deserve a few words of additional observation. No one would for a moment think of being guilty of such an absurdity as that of asking the opinion of a friend upon a new comedy, at the very instant when that friend is half distracted with grief at the loss of an only child; of recommending a masqued ball to a dignitary of the church as an appropriate diversion; or of suggesting the propriety of taking long pedestrian journeys to some unhappy person accidentally deprived of the use of his limbs. In any one of these cases the absurdity is so glaring and so startling, that the least reflecting of mankind could scarcely blunder so grossly as to be guilty of it.

But though we do not quite so obviously blunder when we enforce advice or information when the mind is unprepared to receive it, we quite as certainly act to no purpose as we should in any of the suppositious cases above-named. It is necessary not only to seize the time when the subject may be best introduced, or, if time be wanting, to create the inclination to talk upon the subject, but it is equally necessary to enforce our advice or information at the time, and not earlier, when our preliminary reasonings have fairly, if only temporarily, rendered the mind of our friend free from the recollection of prejudice; for, unfortunately, there is in most men a false pride, springing out of an equally false shame, which causes them obstinately and hotly to defend and abide by error, not because they still continue to believe in it, but because they remember that they used to believe in it.

History is but too rife of details of persecutions and massacres which have sprung out of the collision of these two errors, or the prevalence of the former among men in power, viz.; the desire to convert at the wrong time, and the devotion to watch-words and political clap-traps long after either ceased to have any real meaning, and after all who had ever had any real interest in them had been consigned to the silence and corruption of the charnel.

An anecdote which occurs to our recollection, forms a very appropriate illustration of the preceeding remarks.

Among the Bramins of India, notwithstanding the frivolousness of some of their superstitions and the mischievousness of others, there are many very able and intelligent men; men who, apart from their superstition, would ornament any society and aspire to the very first eminence in art, science, or literature. With one of these a highly educated European resident in India formed a very intimate acquaintance; studying together, and thus mutually profiting. It chanced that the European received from a friend in his native country a valuable and very powerful microscope. Under any circumstances such a present would have been very acceptable to a lover of science; but the gentleman in question was doubly delighted at the arrival of his present, because he hailed in it an infallible medium through which to convince the Bramin of the folly of the *Metempsychosis*, by showing him the utter impossibility of refraining from destroying life even by restricting himself to vegetables for food, and to water for beverage. He accordingly hastened to show to the Bramin the innumerable animalculæ feeding on a single leaf, or disporting themselves in a single drop of water. The Bramin gazed with astonishment, but by no means with the pleasure which his friend had anticipated that he would display. On the contrary, the exhibition made him thoughtful and silent, and he withdrew at length with all the appearance of extreme sadness. He soon, however, repeated his visit, and begged of his European friend to sell to him the wonderful instrument he had recently shown to him. To this the gentleman, very naturally, objected, that as a present from a distant friend it would be both indelicate and ungrateful to sell it; and, farther, that its use should be

quite as freely at the Bramin's service as at his own. Finding that money would not purchase it, the Bramin next offered to give for it some Indian article of equal value, and though delicacy forbade the exchange fully as much as the sale of a present, the gentleman was so struck with the Bramin's passionate desire to obtain the microscope, and so impressed with the notion that a love of science was the cause of that desire, that he at length requested the Bramin to accept of it as a free gift.

This scene passed in an apartment overlooking a pleasure-garden, decorated with artificial rock-work. Immediately on receiving the coveted gift, the Bramin hastened to the garden at a pace very different from the grave and majestic one common to his tribe, seized a huge stone, and laying the microscope on the ground, crushed it into atoms at a single blow! Naturally astonished and indignant at seeing his valuable and almost extorted present thus wantonly destroyed, the gentleman upbraided the Bramin in very warm terms, reproaching him with his shameful hypocrisy and ingratitude, and very frankly assuring him that that would be their last friendly meeting. The Bramin patiently listened to all the reproaches of his friend, and then assured him that the procedure at which he was so indignant, had its origin in neither hypocrisy nor ingratitude, but in very sadness of soul and in sincere desire to save his numerous fellow-religionists from a similar sadness. Till I saw the wonders of your instrument, said he, I was happy; henceforth I shall never know an hour of peace; for I shall never sustain my life with the simple regimen permitted to my race without consciously committing crime; and could I make you fully aware of the horror which arises from that consciousness, you would very readily pardon me having determined at any risk to spare myriads of my fellow-creatures from participating it. Alas! these implements of what you call knowledge, are, in truth, no better than implements of destruction.

And, in fact, though it may at first sight appear that the sole blame attached to the bigotry of the Bramin, the chief blame was attributable to the precipitancy of the European. He began at the wrong end, and instead of showing the Bramin the folly of the Metempsychosis, he simply showed him the propriety of utterly starving. Had he duly cultivated the Bramin's mind first, and then have brought in his microscopic display as a grand and final argument, the result to both him and the Bramin would have been infinitely more pleasurably, and more profitable too.

ON THE STUDY OF GEOMETRY.

OUR readers are already aware that we have no sympathy with those who, either in reality or affectation, undervalue the classics as a branch of education. We are far too profoundly impressed with a sense of their importance to be guilty of any such absurdity; and every new step that is made towards rendering the study of them more facile, delightful, and efficient, we hail with pleasure as a new step made in the onward march of human improvement. But though we are thus favourable to the study of the classics we cannot close our eyes upon the fact, that the same zeal which has been exerted on their behalf has been lamentably wanting in geometry. For one tolerable mathematician, it has been but too truly remarked, that we have twenty more than tolerably proficient classical scholars. Surely, surely, this neglect of geometry is any thing but creditable to our common sense! It is quite possible to find

individuals not competent to enter with a thorough perception and gusto into the innumerable beauties of the classics; but where is the individual, not hopelessly idiotic, to whom geometry is unintelligible? Where is the individual, also, to whom geometry is not calculated to afford either delight or profit? And yet at one of our Universities it is almost wholly neglected; and if we were to search all the private scholastic establishments in the nation we should probably not find one in a hundred in which geometry forms part of the general scheme of tuition. Nor is it only in this enlightened and wealthy country that we find this unaccountable and discreditable neglect of geometry. The intellectual eminence of Germany is almost proverbial. Their mightiest critics and scholars are the lecturers of their Universities; youth of all ranks have the power to participate in the instructions of these ripe scholars; and the consequence is that the higher branches of education are diffused among even the lowest orders of the people to an extent, and with a humanising effect, absolutely incredible to any one who has not been in the country. Yet even in that enlightened country the mathematics are neglected even more than they are by us. As an instance, we may quote the well authenticated fact, that when one of the first mathematicians in Europe lectured at the University of Gottingen he had never more than sixty auditors; and before he could complete his course of lectures that number had gradually dwindled down to three! Yet at this very time there were three thousand students at the University, and consequently taking that session into consideration, Gottingen educated only one mathematician, where it sent forth one thousand classical scholars. Now it cannot be that this neglect of so useful a science has its origin in the difficulty of the science itself, for the graduated course which the student must pursue—for "there is no royal road to geometry"—renders patience and plain common sense sure of the ultimate mastery. But if this be unquestionable, not less so is it that the study is neglected, because the elements of it are not sufficiently popularised. Our system of teaching geometry, so far as it concerns students of tender age, is absurdly repulsive; we revolt and alarm the young student before he can fairly enter upon his work, and the natural consequence is that he contracts a prejudice against the science, and becomes *ipso facto* incurably incapable of studying it, and filled with an unjust and ignorant bigotry equally against its details and its uses. But for this error in our system of teaching it would be impossible for large masses of men, in all other respects so thoroughly and wisely alive to the inestimable value of knowledge, to show such gross neglect on a point so important to all classes.

Some speedy and effectual plan must be adopted for putting an end to our continual neglect of geometry; for other nations are already bestirring themselves with great activity upon the subject. America, for instance, is on the alert; and though we have now, thank Heaven, no vestige left of our former ill-feeling towards a mighty people, identical with us in speech and in faith, we should do ill indeed to be behind hand in showing them an honourable intellectual rivalry. Good and, above all, cheap elementary works must be produced in this department of education, for the evil, as we have said, lies at the commencement. The higher difficulties of the mathematics never yet deterred a human being who had passed the adytum of the noble science. It is the want of a lucid simplicity of system in teaching the elements that causes the evil of which we complain; and that evil, when fairly pointed out, will, we sincerely trust, be remedied by some one of the numerous great and good men, who are so honourably distinguished

for their anxiety for the mental improvement of their kind. Books, we repeat, are wanted, treating the elements neatly and forcibly. At present, except Pinnock's Catechism, we do not know a single work which is fit for very young students; and yet form and proportion are among the very first things which children are capable of studying.

That we have not at all exaggerated the attention attracted to this subject in America will appear clear enough from the following extract from a brief but masterly article, by one of the ablest scholars and critics of that country. It will be seen too, from this extract, that the American writer perfectly coincides with us as to the cause of the but too general neglect of the exact sciences.

"When we reflect that no human mind can, at the same time, be sound, and not endowed with the power of apprehending those axioms which include within them the mathematics, and that the practical applications of this science are most important in common life; we must feel both that the methods of teaching are essentially defective, and that to remedy the defect is most desirable.

"The evil lies at the very beginning. The defective method bears upon the first stages of the instruction in arithmetic given to children who are naturally slow in

calculation, or, to speak more accurately, whose power of calculation is comparatively late in its development. Children whose mathematical faculty develops before the age when school discipline commences, get the start of their instructors; they have methods of their own, and almost unconsciously throw all questions into a form corresponding to their own methods. And besides the practical questions which circumstances give them level to their capacity, constant success gives them a calm sense of power, before which all difficulties vanish. It has been remarked, that the mind often goes to a certain point in mathematics, and then stops. We apprehend that this, however, is no proof of a limited capacity, and that were no violence done the mind, no hurrying forward of the faculties to grasp what is at present beyond them, but patient courage possess the mind, it would go on, after an interval, as before.

"But we will dismiss the consideration of the case of those who have mathematical genius. They are not the only ones who must study arithmetic. No individual of either sex can be placed in any situation of life, in which a knowledge of arithmetic is useless, and to which those powers of mind are not indispensable, to whose evolvment the exact sciences mainly contribute."

ON THE EFFECTS OF TRAGICAL REPRESENTATION ON THE MIND, COMPARED WITH THOSE THAT TAKE PLACE IN VIEWING REAL SCENES OF DISTRESS.

THE strong propensity among men for sights of agony and horror is intimately connected with that remarkable passion, which in all ages has subsisted so universally in every civilized country, for theatrical representations of tragedy. Though the feelings with which men are impressed are of the same kind in both cases, yet they differ essentially from each other in several particulars. In gazing on the public execution of criminals; in viewing, in tumults and quarrels, the maiming or murder of an innocent individual; or in contemplating the domestic distress of a virtuous family, who suffer from sudden, unexpected deaths, from poverty, diseases, or other miseries, there is nothing to divert the full exercise of our compassion for the sufferer. On such occasions all our ideas are of the melancholy cast, heightened by the strongest expressions of sympathy in the spectators, without a circumstance to alleviate our distress, unless what may arise from a desire of relieving the sufferer by such benevolent acts as are in our power. These scenes are remembered for some time with great uneasiness, by persons susceptible of strong feelings, and in certain cases not without some degree of horror; and though this excess of sympathy gradually diminishes by time, yet the recollection of these situations of distress is through life accompanied with disagreeable sensations in the mind.

How different are the feelings of an audience, even of those the most susceptible of strong impression, during the representation of a tragedy! The audience, especially the females, are pleased in proportion as they are affected, and never are so happy as when by tears, sobs, and cries, they give vent to their sorrows, and relieve their hearts, swollen with the tenderest sympathy and compassion. It is this circumstance, of being wrought up to the highest degree of sympathy, for virtue in distress, that carries so many of both sexes to the theatre, where they appear to enjoy a melancholy pleasure, proportioned to the degree of illusion

that takes place in their minds of the reality of the sufferings exhibited. But the more the hero or heroine of a tragedy appears to suffer, and the more dismal the catastrophe, the higher is the satisfaction and delight of the audience in seeing it well represented. Aristotle, considering the tragedies that had a fatal or fortunate termination, observes, that those which ended unhappily always pleased the people, and carried away the prize, in the public disputes of the stage, from those that ended happily.

In mankind there is the strongest propensity for sights of the most cruel distress in others, while they themselves can be placed in a situation free from all hazard of suffering, except from sympathy. This security, enjoyed in the theatre, is so complete as in most cases to give the judgment and imagination their free exercise in contemplating the play, and propriety of action in the performers. Before the play commences, the agreeable conversation of friends, and the general hilarity of a full house, disposes the audience to a pleasant expectation of the performance, and the music is in general adapted to bring our minds in unison with the emotions to be excited by the representation. At the commencement of the play we are perfectly conscious of our real situation; we know we are in the theatre, and about to be entertained with a fictitious representation of distress. But as the pleasure depends chiefly on the degree of illusion into which the mind is drawn of the reality of the representation, so its effects on the audience will be exceedingly various, from the different degrees of intensity in the sympathetic feeling with which individuals are affected. This sympathy, in some, never goes so far as to make them forget that the representation is a fiction, or to prevent the full exercise of their judgment in estimating the merits of the performers; while others have their minds so deeply affected, as to be brought into a conviction of the reality of the scenes. This illusion usually commences with a complete consciousness of our real situation, but advances by degrees

to an almost complete forgetfulness of it, till the shifting of the scenes, the music, or some other interruption to the play rouses us from that absorption in thought, and ecstasy of sympathy. Though this state of the mind argues great merit in the performers, yet it must be remarked that some females susceptible of strong feelings, and delighting in violent emotions, court the approach of sympathy, till by this indulgence they are overcome by fainting.

Here the sympathetic affection is brought to the highest degree of which it is capable, by a fictitious representation: it is even equal to what the mind suffers from the sight of real misery, or death, but is not so permanent; for on recollecting the fiction, the sympathy with its effects gradually vanishes. Though such a state of the mind must be considered as painful, and extremely distressing, yet when the representation falls but a little short of producing these disagreeable consequences, it is to the generality of the audience a high entertainment; for the soul, being roused by passion and charmed by eloquence, is seized with the most lively and strong emotion, which is altogether delightful. We are pleased with the justness of character and sentiment, amused with the gradual discovery of the fable, as the play advances, and with the pathetic narration of virtue in distress, accompanied with a suitable action and modulation of voice, which help to strike the imagination and heighten the pleasure we receive from tragedy. "A virtuous man," says Seneca, "struggling with misfortunes, is such a spectacle as may give pleasure to the gods." To the gods it may, but not to sympathetic mortals; for in real misery, there is nothing to alleviate our sympathy, or divert our attention from contemplating the unhappy state of the sufferer, which is always painful, and often shocking. But we may and do feel an ecstatic pleasure at the judicious representation of a well written tragedy, from the half consciousness of the distress being fictitious. For how great soever the deception, there always lurks, at the bottom, a certain idea of fiction, in all we see; and this idea, though weak and suppressed, suffices to diminish the pain which we suffer from a contrary impression on the mind, of the reality of the scene. A view of the real distress would excite horror; but this by the actors is shown through a veil, which softens its features. The copy is always less vivid than the original; and this imperfection is one of the principal merits of fictitious representation. It is certain, however, that a tragedy well acted, often draws us into an absence to every thing, except a deep contemplation of the incidents of the representation. By a close attention to the progress of the play, that part of the audience capable of being strongly affected, is now and then brought into a dream of its reality, and which it is the interest of the actors to keep up by every possible deception.

It is this reverie which gradually takes place, from an artful deception, exciting sympathy of the mind corresponding to the degree of emotion with which it is affected, that constitutes a great part of the pleasure we receive in the theatre. But these sympathetic feelings are so agreeable, that we pay our money freely in expectation of the enjoyment we are to receive. It must, however, be remarked, that the unconquerable impulse of curiosity which seizes some persons for sights of misery and horror, and likewise the same general passion for tragical representations is always accompanied with an ardent expectation of hearing or seeing something new. This strong desire of novelty, natural to man, acts so universally and constantly on the mind, that it may be said to be inseparable from it, but exists with various degrees of force in different persons. It removes every degree of that disagreeable apathy or languor into which the mind unemployed naturally falls, and this circumstance, with the

others mentioned above, contribute to that exhilarating agitation of the spirits, in which our happiness, in every pleasurable pursuit, seems chiefly to consist. While the reverie subsists, into which we are imperceptibly drawn during the performance of a tragedy, there arises a strong desire, especially among the females, of exhibiting their sympathetic feelings, as an aimable part of their character, and this heightens their enjoyment of the play.

(To be continued.)

ON COURAGE.

IN almost every man's life there are some occasions when his own or his friend's preservation from destruction depends upon his courage; it is therefore perfectly natural that, even in a highly civilized and polished state of society, courage should be held in the highest estimation, and cowardice looked upon with contempt.

We say that this is natural enough, because it is a quality inherent in our nature to admire whatever contributes to our welfare; but though perfectly natural, the admiration we bestow on courage is by no means so perfectly logical.

The courage of which people in general make such great account, is a mere and sheer matter of constitution—which a man has no greater share in producing than he has in regulating his stature, or the colour of his eyes. It is a quality which nearly all male animals possess, while in possession of perfect bodily health; and surely it is but small matter for self-gratulation, that a man has a certain share of the physical hardihood and ferocity of the bull-dog! In point of fact, exceeding physical courage is usually the quality of men who are as sluggish in mind as they are herculean in body, and rather deserves the title of insensibility than that of courage. Thus we find that the wrestlers, and other *athletæ* of antiquity, were almost proverbial for stupidity; and the more modern blackguards, called prize-fighters, have been, with scarcely an exception, the most illiterate and brutal of the very dregs of society.

It must not be for a moment supposed that we are insensible to the real value of physical courage. Far from being so, we should be grieved indeed to find any of our friends deficient of that truly useful quality. But we would not have mere physical courage unduly cried up and cultivated to the neglect of that moral courage, without which it is either useless altogether, or fully as frequently a pest to society as a benefit, and everlastingly as likely to be perverted to the one as to be exerted to the other.

The ancients, though they were far enough from undervaluing physical courage, seem to have had a far truer, because more exalted notions than we moderns have of moral courage. One of them finely said, that there was no spectacle so pleasing to the god's, as that of a virtuous man nobly struggling against adversity. Now, in this saying, lies the strongest eulogium of moral courage, and the strongest rebuke of those who confine their notion of courage to that mere physical hardihood in which, as we have before observed, man is equalled by most, and exceeded by many male animals of the lower species.

It appears to us that what the world calls courage, and so highly eulogises, is for the most part mere matter of nervous insensibility, or a seeming daring of danger, which is in reality only insensibility to its existence; but true courage, the union of courage physical and courage moral, is quite another thing; it is the creature of the mind; it is inseparable from a cultivated intellect and severe virtue. Neither

a foolish man nor a wicked man can possess this only real courage. It looks with a steady and unwinking eye upon the coming peril, and takes all possible precaution against it. It does not seek the encounter, neither does it shun it; and the very danger becomes diminished by the steady and watchful care with which its approach is regarded.

There is another point in which moral courage deserves to be far more highly valued than it generally is. Physical courage, as has been remarked above, is a matter of constitution; but moral courage is the mind's own and determinate creation; and the highest moral courage and a very sufficient portion of physical courage are within the reach of any man who has virtue and a cultivated intellect. In point of fact, we doubt if a really religious man can be otherwise than really brave. Look at the long catalogue of our martyrs! men whose nerves were unstrung by age, imprisonment, want, and torture—aye! and even delicate women and children!—have borne the terrible agonies of the consuming flames, blessing God even with their last convulsive breath. Their courage must have resulted from piety; and though our happier lot is exempted from the terrible necessity which existed to them, we ought in mental discipline to imitate them until we, too, can at any, and every instant, look upon the most horrible peril unmoved and unappalled.

Moral courage is, in truth, another proof of the power of habit. We can train ourselves to the very perfection of it; and when we have once really done so, we can never again lose it. In the present state of society there are, thank Heaven, very few really pressing occasions for the exertion of physical courage; but even when these do occur, that kind of courage will be infinitely improved by its union with moral courage. For instance, the bravest man—physically—might shrink from encountering seven or eight ruffians armed with sticks; but supposing that man to have, in addition to his physical courage, a perfect mastery of the use of the broad sword, he would derive from that a moral courage almost amounting to contempt of the unscientific ruffianism of his assailants; and this very feeling would do fully as much as any of his qualities towards enabling him to disarm and chastise his assailants and preserve his own property and life.

THE AVATARS OF VISHNU.

(Concluded from p. 238.)

In his fifth avatar, Vishnu took the form of a Bramin dwarf, called Varuna, and sometimes, Irivikera, or the three-steps-taker. At the time of this avatar, Bali, now a monarch of Pandalon or Hell, had obtained by his meritorious penances the rule of heaven, earth, and hell; and he used the power thus obtained, so despotically, that the minor deities applied to Vishnu. Bali had been promised that no being of whatsoever kind should have power to dispossess him of his sovereignty, and Vishnu, consequently, at once resorted to artifice. Having transformed himself into a Bramin dwarf, he presented himself before Bali, and asked for as much ground, upon which to build a hut, as he could stride over in three steps. Bali readily granted a request so seemingly moderate, and to his great alarm and astonishment, the dwarf at three steps, bestrode earth, hell, and heaven. At witnessing this prodigious feat, Bali at once felt his inferiority, and submitted to Vishnu, who gave him rule in the lower regions, with permission to visit upper earth, on the November full moon of every year.

In the sixth avatar, Vishnu had the form of Rama, son of the king of Ayodi, to which form he was condemned by the malediction of Naredaa, son of Brama, upon whom he had played the trick of transforming him into a human form of great beauty decked with a frightful ape's head. In this incarnation, Vishnu exerted himself in propagating the doctrine of the Metempsychosis; and subdued Ravonen, king of Ceylon, who was violent in his opposition to him. In the seventh avatar, Vishnu had the form of a man named Belapatren, and performed prodigious feats of heroism, in clearing the earth of giants and oppressors.

On the eighth avatar, Vishnu, as Parassaruma, endeavoured to render mankind universally virtuous, and contemptuous of merely worldly things. Having vanquished the kings of the race of the sun, he gave their territory to the Bramins, who had the ingratitude to refuse a home to the bestower of so magnificent a benefaction. The Ghaut mountains were at that time washed at their base by the sea. Hither Parassaruma betook himself, and begged of Varuna, the ocean god, to withdraw the sea for the space of an arrow's flight. Varuna easily promised this, but had no sooner done so, than he learnt to his great dismay, that the seeming Parassaruma was no other than Vishnu, whose arrow would doubtless wing its way over the whole waste of waters. Alarmed at such a prospect, Varuna applied to the god of death, who metamorphosed himself into the destructive white-ant, obtained access to the redoubtable bow of the disguised Vishnu, and gnawed its string almost through. When Vishnu, at the appointed time, drew his bowstring, it snapped in two, jerking the arrow only over so much space as now forms the coast of Malabar, which the waters instantly retired from. Enraged at his ill-success, Vishnu, now doubly angry with the Bramins, whose ingratitude had exposed him to so signal and galling a defeat, decreed that from that time forth, any Bramin who might die on that coast should, despite of whatever merits he might possess, return upon earth in the form of an ass.

In the ninth avatar, Vishnu appeared on earth as a shepherd. He was the nephew of Cauzen, king of Madurah: and it having been foretold to that personage that he would lose his crown and his life by the hand of a son of his sister, he ordered all her children to be put to death as soon as born. Seven children had already fallen beneath this sanguinary order; but Vishnu being born in the semblance of the eighth, called Krishna, he commanded his mother instantly to send him to the care of a shepherdess called Asswadah, and to produce to the king a female child of that woman. He was obeyed, and though the king ordered a general massacre of children, his nephew was securely hidden by his nurse, and grew up to manhood, surrounded by shepherds and shepherdesses. Among the exploits of his youth, was that of destroying a terrible and hideous serpent, called calangan, which infested the banks of the river Yomondi. Giants and demons in great numbers, were destroyed and vanquished by him in this avatar; and having exterminated an army of the former, sent against him by his tyrannous uncle Cauzen, he crowned this marvellous feat by destroying that tyrant himself. After performing a variety of benevolent actions in favour of mankind, he was so much grieved at the prospect of a more wicked age than any he had witnessed, that he caused a hunter to put him to death, and to burn his body to ashes on the sea-shore.

The tenth avatar of Vishnu is as yet to come; and nearly a hundred thousand years have to elapse ere its commencement. In it, Vishnu will appear in the human form, and in the family of a Bramin. His name in this incarnation will be Calichi: armed with a flaming scymetar, and mounted

on Bigeiscinar, a steed of wondrous size and swiftness, he will traverse the earth in every direction, destroying all men and all things, until chaos shall come again, when a new world will spring forth out of the dark void.

Even the least attentive reader must have seen in the avatars of Vishnu, a marvellous similarity to the metamorphoses of the Grecian deities; and there is no doubt that the former, taking their origin in exaggerated human deeds, wild fignents of fancy, and a dark glimmering of traditional truth, gave rise to the latter, habits, climate, and circumstances modifying the latter so far as to produce the various differences between the two.

EASTERN MAGNIFICENCE.

Though there was some exaggeration in the vast notion which for very many years Europeans entertained of the gorgeousness and magnificence of the East, yet the statements of the most sober and matter-of-fact writers who have resided there, read rather like the splendid dreams of imaginative genius than like narratives of real life. Forbes, in his "Oriental Memoirs," gives an account of the splendid state of Asef, Nabob of Oude, whose riches almost surpass belief. Palaces, horses, elephants, and gardens, were but a portion of his possessions; costly furniture and trinkets being purchased for him from England alone, to the annual amount of 200,000*l.* Guns of the most exquisite workmanship, magnificent lustres, mirrors, girandoles, clocks of the most curious workmanship, and set with jewellery of the most costly description, were to be found in each of the twenty palaces of this wealthy prince; and some notion may be formed of the value of the property thus collected from the fact, that for two clocks of the expensive sort we have described, one Nabob paid a sum no less than 30,000*l.* sterling.)

But though our Nabob had a perfect passion for every thing that was expensive and splendid, he was quite destitute of any thing like taste or science. His costliest treasures were interspersed with the most trumpery toys; there being as a clever writer tells us, a wooden cuckoo-clock placed close to a superb time-piece which cost the price of a diadem; and a valuable landscape of Claude Lorraine suspended near a board painted with ducks and drakes; and though he had the implements of all the arts and sciences he had no knowledge of the principles or practice of any one of them! In jewellery he was especially curious and wealthy, his jewels being valued at the enormous sum of 800,000*l.* sterling; and among these precious treasures the Nabob might daily be seen handling his costly trinkets with all the enjoyment of a young child. But even beyond all his own personal magnificence, his lavish expenditure at the marriage of his adopted son, the Vizier Aly, will best serve to give us an adequate idea of the Nabob's vast wealth.

The marriage in question took place at Lucknow, in the year 1795. In the neighbouring plains a vast camp was formed; two of the numerous tents alone costing the vast sum of 50,000*l.* sterling! The tents in question were about sixty feet high, sixty wide, and one hundred and ten long, and were composed of very strong cotton cloth, lined with the finest English broad cloth, in stripes of different colours, and with cords of silk and cotton. The jewels with which his highness was literally loaded were valued at 2,000,000*l.* sterling, and the principal apartment was lighted with 200 girandoles of the most costly workmanship, the like number of glass shades with wax candles, and several hun-

dred flambeaux; and the reflection of their numerous lights from the profusion of gems by which the company were decorated, was so brilliant as to be really painful to the eyes.

As usual in the East, the bride and the bridegroom were both very young, the former being only ten years of age, and the latter only thirteen; and they were both covered with expensive and beautiful jewellery. From the encampment the company proceeded to one of the most extensive and beautiful of the Nabob's gardens, situated at about a mile distant. Upwards of 1200 elephants completely and richly caparisoned were drawn up in line; about 100 of them in the centre, bearing howdas or castles, thickly and strongly ornamented with silver. On the largest of the elephants, and in the most costly of the Howdas, sat the Nabob himself; on his left was the young bridegroom, and on his right the British resident at Lucknow; the native nobility and foreigners of distinction occupying the remainder of the Howdas. All along the road from the encampment, each side of the way was lined with bamboo-work, in the forms of arches, towers, &c. the whole of which were thickly hung with glass lamps. In front, and at each side of the procession, were 200 platforms, supported by bearers, and upon each platform were two dancing girls, and two musicians, the former being most splendidly though meretriciously attired, and dancing as they were borne along. At almost every step taken by the elephants artificial earthquakes threw up fiery stars; rockets rushed through the air; and wooden shells bursting high up above the earth threw out fiery serpents, which in their turn exploded in every direction. It was completely night when the procession started, but the lamps which lined the road, the vast number of fireworks which were perpetually exploding, and the glare of the flambeaux, carried by 3000 attendants, specially appointed to that duty, turned the natural darkness into a brilliancy quite dazzling.

As the procession moved very slowly it was fully two hours in traversing the mile of space between the camp and the garden. On arriving there the company descended from their elephants at the gates, and suddenly found themselves amid a perfect blaze of various coloured lamps, with which both the walls and the trees were profusely covered. In the centre of the garden stood the spacious and elegant summer-house, in the chief apartment of which a sumptuous repast was served, consisting of all the most choice articles of both European and Indian *cuisine*, followed by wines and fruits of the most exquisite description. The spacious *salle à manger* was lighted by numerous girandoles and lustres, and musicians and dancing girls, to the number of 200, were present for the amusement of the company, who did not retire from the gay scene until the dawn of the morning.

The procession and feasting were repeated on the two following nights; and the expense of the three nights, as the Nabob, with his usual vanity, observed to one of his English visitors, amounted to upwards of 300,000*l.* sterling! Above 100,000*l.* for the pomp and luxury of a few hours! To that what is the grandest of the banquets of the potentates of Europe? Economy—nay, very parsimony?

IRRIGATION IN INDIA.—The culture of a large portion of India depends upon irrigation. To promote this, tanks have been constructed in immense numbers, and the repairs and restoration of reservoirs form a heavy charge upon the government. These tanks are constantly liable to accidents; and in one district of the Madras presidency, North Arcot, no less than eleven hundred burst in one year, 1827.—*Thornton's India.*

ON SCULPTURE.

SCULPTURE is an art of much more simplicity and uniformity than painting: it cannot, with propriety and the best effect, be applied to many subjects: the object of its pursuit may be comprised in two words, form and character; and those qualities are presented to us but in one manner, or in one style only; whereas the powers of painting, as they are more various and extensive, so they are exhibited in as great a variety of manners.

The Roman, Lombard, Florentine, Venetian, and Flemish schools, all pursue the same end, by different means: but sculpture having but one style, can only to one style of painting have any relation; and to this (which is indeed the highest and most dignified that painting can boast), it has a relation so close, that it may be said to be almost the same art operating upon different materials.

The sculptors of the last age, from not attending sufficiently to this discrimination of the different styles of painting, have been led into many errors. Though they well knew that they were allowed to imitate, or take ideas for the improvement of their own art from the grand style of painting, they were not aware that it was not permitted to borrow in the same manner from the ornamental. When they endeavour to copy the picturesque effects, contrasts, or petty excellencies of whatever kind, which not improperly find a place in the inferior branches of painting, they doubtless imagine themselves improving and extending the boundaries of their art by this imitation; but they are in reality violating its essential character, by giving a different direction to its operations, and proposing to themselves either what is unattainable, or at best a meaner object of pursuit. The grave and austere character of sculpture requires the utmost degree of formality in composition; picturesque contrasts have here no place; every thing is carefully weighed and measured, one side making almost an exact equipoise to the other: a child is not a proper balance to a full grown figure, nor is a figure sitting or stooping a companion to an upright figure.

The excellence of every art must consist in the complete accomplishment of its purpose; and if, by a false imitation of nature, or mean ambition of producing a picturesque effect or illusion of any kind, all the grandeur of ideas which this art endeavours to excite be degraded or destroyed, we may boldly oppose ourselves to any such innovation. If the producing of a deception is the summit of this art, let us at once give to statues the addition of colour which will contribute more towards accomplishing this end than all those artifices which have been introduced and professedly defended on no other principle but that of rendering the work more natural; but as colour is universally rejected, every practice liable to the same objection must fall with it. If the business of sculpture were to administer pleasure to ignorance, or a mere entertainment to the senses, the Venus of Medicis might certainly receive much improvement by colour; but the character of sculpture makes it her duty to afford delight of a different, and perhaps of a higher kind—the delight resulting from the contemplation of perfect beauty: and this, which is in truth an intellectual pleasure, is in many respects incompatible with what is merely addressed to the senses, such as that with which ignorance and levity contemplate elegance of form.

The sculptor may be safely allowed to practise every means within the power of his art to produce a deception, provided this practice does not interfere with or destroy higher excellencies. On these conditions, he will be forced, however loath, to acknowledge, that the boundaries of his art

have long been fixed, and that all endeavours will be vain that hope to pass beyond the best works which remain of ancient sculpture.

Imitation is the means and not the end of art; it is employed by the sculptor as the language by which his ideas are presented to the mind of the spectator.

Poetry, and elocution of every sort make use of signs, but those signs are arbitrary and conventional: the sculptor employs the representation of the thing itself, but still as a means to a higher end,—as a gradual ascent, always advancing towards faultless form and perfect beauty. It may be thought, at the first view, that even this form, however perfectly represented, is to be valued, and takes its rank, only for the sake of a still higher object, that of conveying sentiment and character as they are exhibited by attitude and expression of the passions; but we are sure, from experience, that the beauty of form alone, without the assistance of any other quality, makes of itself a great work, and justly claims our esteem and admiration. As a proof of the high value we set on the mere excellence of form, we may produce the greatest part of the works of Michael Angelo, both in painting and sculpture, as well as most of the antique statues, which are generally esteemed in a very high degree, though no very marked or striking character or expression of any kind is represented.

But, as a stronger instance that this excellence alone inspires sentiment, what artist ever looked at the Torso without feeling a warmth of enthusiasm as from the highest efforts of poetry? From whence does this proceed? What is there, in this fragment that produces this effect, but the perfection of this science of abstract form?

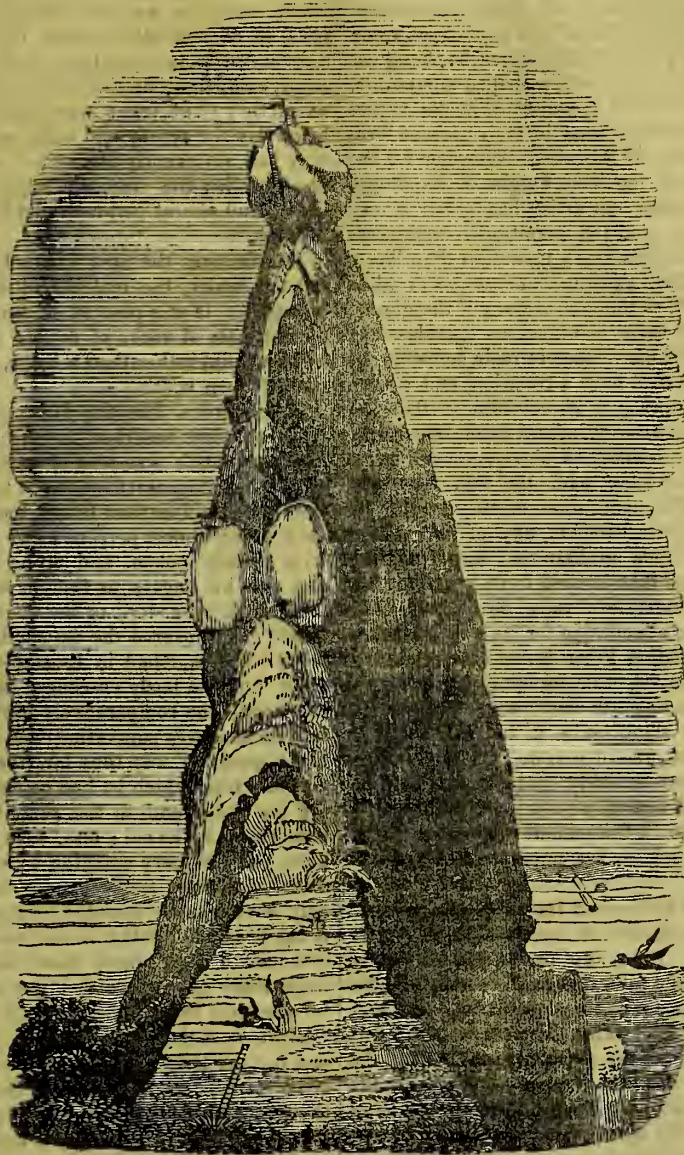
A mind, elevated to the contemplation of excellence, perceives, in this defaced and shattered fragment, *disjecta membra poetæ*, the traces of superlative genius, the reliques of a work on which succeeding ages can only gaze with inadequate admiration.

It may be said, that this pleasure is reserved only to those who have spent their whole life in the study and contemplation of this art; but the truth is, that all would feel its effects if they could divest themselves of the expectation of deception, and look only for what it really is, a partial representation of nature. The only impediment of their judgment must then proceed from their being uncertain to what rank, or rather kind of excellence, it aspires, and to what sort of approbation it has a right. This state of darkness is, without doubt, irksome to every mind; but by attention to works of this kind, the knowledge of what is aimed at comes of itself, without being taught, and almost without being perceived.

The sculptor's art is limited in comparison of others, but it has its variety and intricacy within its proper bounds; its essence is correctness: and when to correct and perfect form is added the ornament of grace, dignity of character, and appropriate expression, as in the Apollo, the Venus, the Laocoon, Moses of Michael Angelo, and many others, this art may be said to have accomplished its purpose.

COFFEE IN INDIA.—The cultivation of coffee in India is of recent introduction, the first plantation having been established in 1823.—*Thornton's India*.

SCHOLASTIC COMPETITION.—The degree of talent and industry displayed by boys is an erroneous index to their future character as men. The fortunate competitors for school and university honours are not always—perhaps it may be said not often—eminent in after life; whilst the men who have failed in attaining these distinctions, not unfrequently exhibit a degree of ability of which their early years afforded no indication.—*Ibid*.



View of Peter Botte's Mountain.

PETER BOTTE'S MOUNTAIN IN THE MAURITIUS.

WHEN Napoleon Buonaparte described the English as being a "nation of shopkeepers," he surely overlooked divers and sundry qualities for which we are to the full as remarkable as we are for our love of "turning the penny." For our own particular part we should be very much inclined to describe our worthy though rather eccentric compatriots as a "nation of mountain-climbers." To climb, seems to be one of the very conditions of English existence. Andes or Alps, the Pyrenees or Pompey's pillar, any height, any where, must be climbed, or we should deem ourselves shorn of a capital portion of our national reputation.

Some years ago we remember to have been both delighted and astonished with a racy and sparkling account, published, if our memory do not deceive us, in the "New Monthly
No. 241.

Magazine," of the "ascent of Mount Blanc," by John Auldjo, Esq. The "hair-breadth 'scapes," and indomitable perseverance of that gentleman we thought would never be any thing like paralleled, by even the most enthusiastic votaries of the somewhat perilous as well as laborious pastime of climbing. We erred, however. His merits, whether as an indefatigable and undaunted climber, or as a brilliant and gifted writer, remain undiminished; but even the ascent of Mont Blanc, that monarch of mountains, crowned with his "diadem of snow," must yield the *pas* to the feat of reaching the summit of Peter Botte's mountain; a feat which we may venture to prophesy will never be exceeded in its own peculiar line of adventurousness.

The island of Mauritius is situated near the eastern coast

of Africa, and still nearer to the Isle of Bourhon,* and received its present name in honour of Maurice, prince of Orange. Among the many proofs of the action, at some distant period, of volcanic power in this island, is the great number it possesses of lofty and oddly-shaped mountains, which look as if thrown violently heavenward by the throes of the struggling earth, and disposed in their present form by their sudden and undirected descent. Whether for the oddity of its appearance or the vast height of its craggy mass, the mountain of which our artist has given a very faithful likeness, is chief of even the mountain-eccentricities of the Mauritius. It looks less like a mountain than like a conglomeration of mountains, and the classical reader while gazing at it can scarcely fail to think of the war of the giants, and fancy that certain of their mountainous missiles met here and became one by the mere force of their collision.

The inhabitants of the island have a tradition, and we can see no good ground for doubting of its correctness, that this oddly shapen mass takes its name from one Peter Botte, who contrived to ascend to its summit in safety, but fell while descending and broke his neck with the fall. A more convenient spot for the facile dislocation of the vertebrae, it would not be easy for mother earth in any of her various aspects to afford; and it seems unlikely that any thing less than so awful an accident as that alluded to in the tradition, should procure for so unromantic a name as that of Peter Botte the honour of having a mountain for his namesake and memorial to all time. Whether Peter Botte did or did not break his neck in descending this mountain, or, indeed, whether such an individual as Peter Botte was ever within a hundred leagues of the island, is a matter which little concerns the interest of our present narrative. There stands the mountain! and a most unlikely spot upon which to drink to his Majesty's good health, we fancy our readers will think it. But so did not think the gallant officers of whose perilous and daring adventure we are about to give a brief account.†

It appears that from the time when tradition attributed so disastrous an issue to the descent of the unfortunate Peter Botte, down to the year 1831, no one was sufficiently emulous of Peter's fame and fate to attempt to reach the summit of that luckless person's huge namesake. In that year Captain Lloyd and Mr. Dawkins attempted the difficult adventure, and ascended to the top of the widest part of the mountain; but on reaching the commencement of the narrowest and most difficult part, which bears the name of the neck, they found that the means they had provided were insufficient for their farther progress, and accordingly commenced their descent, leaving the ladder behind them as a memorial of what they had accomplished. But though baffled in his first bold attempt, Captain Lloyd had a strong conviction that the want of success was owing solely to want of means; and in the following year, having provided every thing that seemed likely to facilitate their progress, that gentleman, with Lieutenants Taylor, Phillpot and Keppel, preceded and followed by several negroes and sepoys, carrying provisions and other necessaries, commenced their upward march.

After toiling for several hundred yards along a narrow

path abounding in loose stones and fragments of rock, of which latter one was not unfrequently detached, to the great peril of all beneath it, they reached the shoulder, where a scene suddenly burst upon their sight, by which they felt amply compensated for all their toil. The portion of rock upon which they stood was a mere ridge, of fifty or sixty feet long; below lay the woody and wild-looking scene through which they had so recently made their way; while in the opposite direction lay the craggy precipice, fifteen hundred feet in depth, and almost perpendicular from its summit to the plain beneath.

On reaching the spot where Captain Lloyd had formerly left the ladder, the real difficulties of the task became more apparent. It was planted at the foot of an almost perpendicular mass of rock, of double its own height, and rested upon a point rather than a ledge, of only a few inches more than its own width.

The negroes, like the Hindoos, use their toes nearly as deftly as they use their fingers; and a negro servant of Captain Lloyd's was now of most important service to our party. Having ascended to the topmost round of the ladder, this agile and fearless fellow took advantage of a sort of cleft in the almost perpendicular face of rock, of which we have already spoken, and up he went, now using his toes, and now his fingers, as though he were a veritable monkey.

A single false step, or the unexpected shifting of a stone, would have insured the destruction of the climber; and the party below watched in breathless anxiety every motion he made, until he fairly ensconced himself under what is called the neck—the comparatively narrow portion of the mountain immediately supporting the rounded summit. Having made good his way thus far, the negro now made fast the end of a rope which he had carried up with him, and throwing the other end to the party below, the four gentlemen climbed up by its aid; and, says the gallant lieutenant, “a more extraordinary situation I never was in.” At the foot of the neck there was, on three sides, about six feet of tolerably level ground, bounded by the precipice; the fourth side being bounded by the dangerous ridge by which they had ascended. High above them rose the neck, supporting the huge mass of rock called the head, which is many feet broader than the supporting rock in every direction.

Even now there remained to be done the most difficult, and not the least perilous portion of the task. This was to convey a rope over the neck of the mountain, so as to obtain the means of making fast a ladder, by which to achieve the remainder of the ascent. Choosing the most favourable position—and “had was the best”—Captain Lloyd, secured from falling by a rope held fast by his three fellow-adventurers, after several attempts, succeeded in performing this difficult operation; and the four at length succeeded in getting to the very summit of “the head.” By means of ropes, they now hauled up “the meteor flag of England,” and, uncorking a bottle of wine, they hoisted their flag, and drank to the good health of William the Fourth, the Endeavour frigate, and the saluting battery of the island firing a salute; and the very negroes who had been left upon the shoulder of the mountain making the welkin ring with their joyous huzzas.

The adventurous and successful *partie quarré* now descended to the shoulder and dined; but as the evening began to darken down they returned to the head, where they had determined to bivouac for the night. While their brandy and cigars held out, our party of climbers enjoyed themselves tolerably well; but a stiff breeze arising during the night, they were too cold to sleep; and, in spite of tucking in the blankets, which seems to have been their principal occupa-

* We may take this opportunity of impressing upon our readers the absolute necessity, in order to really understand what they read, invariably to refer to the map, whenever mention is made of a place with which they have not made a personal acquaintance.

† The substance of which we borrow from the lively account furnished by Lieutenant Taylor, one of the adventurous party, to the Geographical Society.

tion, they were all thoroughly stiff, weary, and comfortless, when they rose at day-break.

We must not omit to remark, that to all the other *agréments* of their situation, was added the fact of one of the party being so inveterate a somnambulist, that, to prevent his walking in his dreams over the sheer precipice, it was deemed necessary to make his leg fast to that of one of his companions!

Lieutenant Taylor describes the view of the island, and the sea lying tranquilly and beautifully below them, in the silvery sheen of the moon, as being the most beautiful scene he ever looked upon. A very striking effect was produced, too, by a rocket which they discharged, and some blue lights which they burned in the early part of the night.

In the morning, though stiff, chilled, and as hungry as hunters, they worked indefatigably for between four and five hours, in making a hole on the very top of the head. In this hole they fixed their ladder, with a barrel, and a long staff bearing the union jack; and then, having given three times three cheers, commenced their descent, which they safely accomplished, and arrived in the town in time to dine amid the cheers and congratulations of the inhabitants, and, above all, of their compatriots.

Though, carried away by the animated recital of the gallant officer, we have adopted his own tone of mere narrative; there are two points upon which we cannot conscientiously abstain from remarking. In the first place, this feat, like the ascension of Graham, Green, and the rest, in balloons, is a sheer matter of vanity. No good can result from it, while the peril of much evil is incurred; and, except for the sake of being talked about, the man who scales a mountain or takes an aerial voyage in a balloon would be just as wisely employed in poking his hand into a fierce fire, and just as worthily employed in grinning through a horse collar, or running in a sack. Common sense can see nothing in any of these feats to deserve praise—indeed, nothing which does not deserve censure. The other remark we would make is simply this—the person who performed the most difficult part of the task was not “a gallant son of Neptune,” but—a negro!

THE PEARL FISHERS OF INDIA.

It is a curious fact, and one which ought to prevent any absurd and excessive love of personal decoration, that silk, the most costly material of dress, is produced by an insect; and pearls, among the most costly articles of decoration, by an oyster, and, indeed, as very many of the most intelligent naturalists affirm, only by a diseased oyster.

The season for pearl-fishing commences in February, and lasts until about the middle of April, and the following is the course pursued at the principal station. The station in question, is situated about twenty miles seaward from a place called Condutchey, where the fleet of boats, masters, and most of the fishers reside. The submarine banks, upon which the oysters are found, are divided into seven portions, each of which is fished only once in seven years. By this arrangement, the oysters in each division have sufficient time to come to their full growth, and each portion is well fished of all the largest and most promising oysters, which would be quite impracticable in so brief a season, if the whole extent were gone over at once. Indeed, short as the season necessarily is, as it must be terminated by the southern monsoon, it is practically rendered still shorter by one-half; partly by the frequent appearance of sharks, which,

of course, prevent the divers from descending, and partly by the occurrence of various Hindoo and Mahometan festivals, during which no one will dream of working.

During the greater part of the year, the village of Condutchey presents to the eye of the beholder nothing but an assemblage of truly wretched huts, situated in a crescent-shaped bay. But during the fishing, this petty place is crowded by thousands of men, of various country and colour, residing in tents or temporary huts, occupied as shops for supplying all the demands consequent upon so vast a congregation of men.

At ten o'clock at night, a gun is fired from the adjacent fort of Arippe, and the fleet of boats sets sail before the land breeze. By about daybreak they reach the banks, and make the most of their time from then until the rising of the sea-breeze, about noon, which warns them to return. Each boat, beside the director or steersman, has a crew of twenty men, ten of whom row the boat, and pull up the divers when they give the signal. With the toes of one foot, the diver grasps a rope, to which is attached a tolerably heavy stone to accelerate his descent, and with the toes of the other foot he carries a net-work bag, in which to put the oysters as he collects them. Taking hold of another rope with his right hand, and pressing his nostrils tightly together with the left, he leaps from the boat. As soon as he reaches the bottom, he slings the bag round his neck, grasps right and left at all the most promising oysters, and on finding his strength exhausted, makes a signal by pulling the rope in his right hand, withdraws his hold of the rope to which the stone is attached, and which is pulled up after him, and is speedily hauled with his spoils into the boat.

The longer the diver can bear to remain submerged, the greater of necessity is his value. Few can remain below for more than from two to three minutes; but some divers have been known to do so for five minutes, and one very extraordinary one for as many as six. So violent is the pressure upon them while beneath, that it is quite common for blood to gush profusely from their mouths and nostrils on their reaching the boat; and yet the poor fellows, five out of each ten going down at a time, will dive as often as forty or fifty times during the few hours of their being at work, and bring up about five or six score of oysters at each time.

Heavy as the task is in its very nature, and under the most favourable circumstances, it is rendered doubly bad by the danger the divers are in of being devoured by the rapacious sharks. This danger is so appalling to even the boldest and the most experienced, that the dread of it would most probably prevent the pearl-fishery from being any longer carried on, but for a superstition to which the divers attach great importance—that, namely, of “shark-conjuring.”

A set of impostors, called shark conjurors, pretend to have the power, by certain prayers and ceremonies, of preventing the sharks from molesting the divers. At sunrise, when the work of the absent divers is just about to commence, the shark-conjurors take their station on the beach, muttering some unintelligible gibberish. This they continue to do until the fleet is in sight on its return; and during all that time they must neither eat nor sleep, their prayers in case of their doing so being no longer efficacious. To make up for their abstinence as to food and sleep they are permitted to drink *ad libitum*, and of this permission they avail themselves to such an extent that they are frequently in a state of perfect intoxication, long before the return of the fleet. Happily for the poor divers, their own wonderful agility in the water, and the vigilance with which their fellows in the boat watch for their slightest signal, are somewhat more efficient protection against the ravages of the sharks than

the muttered gibberish of the impostors. Busy as the diver is in filling his bag with oysters, he looks sharply out for his enemy the shark. If one happen to approach, the diver agitates the bottom so as to render the water sufficiently muddy to obscure the monster's vision, and pulls sharply at the rope. At that well-known signal all hands in the boat lend their strength to the rope, and the diver is quickly hauled safely into the boat. Sometimes, indeed, an unfortunate diver is surprised, in spite of all his caution, and devoured ere he can give the signal; and sometimes he is torn limb from limb, even as he is being drawn rapidly upward; but these terrible calamities are of comparatively rare occurrence.

When the fleet returns to shore, the oysters of each proprietor are laid in his proper division or enclosure, where they speedily die and begin to putrefy. This is done because to open the living oyster requires a certain degree of force, in the application of which there is considerable risk of injuring the pearl. When putrefaction is sufficiently advanced, the oysters are opened and carefully examined, and if no pearl be visible in the shell the oyster is boiled.

Generally, the owners of the boats, and renters of the oyster banks pay the divers certain fixed wages; but sometimes an agreement is made by which the divers have one-fourth of the produce, and their employers the remaining three-fourths.

Though this trade seems at first sight to be one at which prodigious fortunes must be made, it is in truth a very precarious trade in which to embark capital. The rent of the bank, and the expenses of fishing it are prodigious and certain, while the produce of a whole boat-load of oysters is frequently insufficient to pay a single diver for his day's work. And in addition to the precariousness inseparable

from the very nature of the pursuit, the pearl merchants are shamefully plundered by the men who are employed in searching the oysters. These men work, it is true, under the eyes of vigilant inspectors, but their dexterity in their dishonest sleight-of-hand is so great, that no vigilance can keep them honest; and as they take care to steal the largest and finest pearls, their conduct is a very grievous evil. For one of their modes of secreting the pearls, their employers have hit upon a mode as efficient as ludicrous. When it is suspected that a pearl has been swallowed—and that is the most frequent mode of secreting them—the suspected delinquent is placed in solitary confinement and soundly drenched with strong emetics.

Pearl-dust is used in polishing the pearls and rounding them as we receive them; the portion taken from one pearl in the process of cleaning it, serving to round and polish another. The round pearls are the most admired, but they are generally very inferior in size to the oval or pear-shaped ones. One of these, in the possession of a late sovereign of Persia, was above an inch across, and above an inch and a half in length; and it was valued at the enormous sum of above 50,000*l.* sterling.

When we reflect upon the hardships endured by the divers, and upon the frightful waste of life caused by the fevers which take their origin in the effluvia of the putrefying oysters, we could almost wish that our ladies, and that princes were destitute of their ornaments of pearl, beautiful as they unquestionably are, rather than that a mere luxury should be procured at the expense of so much evil. But luxury is too strong for philosophy, and probably centuries will elapse ere human life will cease to be embittered and wasted in this, probably, severest of all the pursuits of human beings.

NO. VIII.—SELF-INSTRUCTOR IN ASTRONOMY.

VENUS. ♀

VENUS is the second planet in the system; moving in an orbit round the sun, distant about forty-eight millions of miles from that luminary. She appears to us extremely brilliant, so much so, as to be occasionally visible in daylight. Her illuminated surface presented to us appears at times like the new moon horned; at other times oval or gibbous. The real diameter of Venus is nearly the same as that of the earth, viz.—about 8000 miles, and is probably a globe composed of similar materials; the period of her revolution round the sun is 224 days and 17 hours, nearly eight months of our time; and being comparatively near that luminary, can be seen by us for a short time before sunrise or sunset.



By means of very powerful telescopes, mountains have been observed on the planet Venus, by which her diurnal motion is ascertained to be performed in about twenty-three hours and a half; and her axis having a greater degree of obliquity to her orbit, and that of the earth, the variations of her seasons are more extreme than with us.

As Mercury and Venus both revolve in orbits which are circumscribed by that of the earth, they are termed inferior planets—perhaps more properly interior—while those planets whose orbits are beyond that of the earth, are called superior planets, or, properly speaking,

MYTHOLOGICAL HISTORY OF THE PLANET VENUS.

The ancient Egyptian name of this planet was *Ataor*, the same as the goddess *Sri* of the Hindoos, who was said to be produced from the sea. The natives of Syria distinguished this planet by the name of *Venus*, out of respect, it would appear, to Pharaoh's daughter, whom Solomon betrothed, and for her sent a magnificent equipage, in the form of a swan, with cherubs, doves, &c. whence we have the representation of Venus, drawn by doves, and surrounded by Cupids. The particulars referred to, as they are expressed with more simplicity, beauty, and apparent truth, than in any other account of the subject to be met with, we shall give in the words of a luminous writer.

Alluding to Wood's work on *Balbeck* and *Palmyra*, he says, "In plate twenty-nine may be seen the figure of Solomon, very well carved; Queen Myra also, from Egypt, the daughter of Pharaoh; and Naamah, the mother of Rehoboam. This figure of him is, in some parts of the heathen mythology, represented as Jupiter, because mounted on an eagle, and soaring up to heaven. The true metaphor is, the representation of God's power in raising him up to be the greatest, wisest, and most favoured on earth; similar to what Moses represents to the Jews in the sixth chapter of Exodus, ver. 4.—'Ye have seen how I bare you on eagles' wings, and brought you unto myself.' A more lofty and

impressive metaphor could not have been put in writing. 'The lady with the tame stork, or ibis, eating bread from her mouth, and reclining under the shade of a willow tree, is Pharaoh's daughter. In the heathen mythology she is called Lida, that is, half the god; and the story is, that the king, in the shape of a swan, seduced her to marry him for his great riches. It was the magnificent chariot he sent to bring her home in that was so shaped, and which gave rise to the metaphor. The elegance and grandeur of it may be in some measure estimated by what the Scripture says of his own,—'The pillars were of silver, the bottom of gold, and the covering of purple.' Hers, no doubt, surpassed his, and those that accompanied her were very little inferior; so we must believe when we remember the representation of Venus drawn by doves, and surrounded by Cupids, which had its origin from this excellent princess, sitting in her chariot, on leaving Egypt, which was ornamented behind with cherubs, and before with doves, as if in the act of flying to her husband. The other lady, with the ornamented crescent on her head, the bow in her hand, and most expressively feeling the point of an arrow with her finger, to try if it is sharp enough to kill game, while the dog as expressively fawns on her to go out, is Naamah, *i. e.* the good, the most beloved of all Solomon's queens. She was a great beauty, and exercised herself much in the use of the bow; for which reason, she was called Diana* by the Syrians—that is, head goddess, and in the heathen mythology, the goddess of hunting. The Syrians paid her great adoration, and spread the metaphor of her divinity into Asia Minor, where she was worshipped, and at last had a fine temple erected to her at Ephesus. That temple was also called a wonder of the world, and was intended to equal the palace at Balbeck,† but never could. Her fame increased until the commencement of Christianity, when it gradually declined to silence.

Naamah was a Jewess, though said to be born out of the country; and Leah, from whom she derived her descent, wore the crescent on her head, as the family distinction of the elder daughter. For the same reason, Naamah wore it likewise. The metaphor was, that the male should represent the sun, and the female the moon. Joseph, in his celebrated dream, was shown the sun and moon, under the metaphor of his father and mother, bowing down to him.'

CUNNING AND TALENT.

CUNNING people generally think themselves very clever; it is to be regretted that the error is commonly shared by other and better people, who are thus led to hold cunning in far less utter and hearty contempt and dislike than it deserves. Your very cunning man is so far from being the clever person

he supposes, that he in fact owes the very cunning upon which he prides himself, to a general weakness of mind of which he would be right sorry to suspect himself. His sword and shield—his weapon of both offence and defence, is cunning; with that he can almost always overcome and baffle far stronger minds, just as the fox could quite easily baffle the infinitely more noble elephant. But woe betide him if opposed to a more cunning man than himself! then his weapon is shivered to the very hilt, and he stands bared and helpless before his adversary.

If all the failures of cunning men could be brought under public notice, their contemptible quality would no longer be supposed to have any connexion with talent; for the more completely cunning men are, the more completely short-sighted are they also; and while taking the utmost pains to overreach one man on some one point, they lay themselves open to him and all the world upon a score or so of others! A pretty kind of "talent" that, truly, which enables us to gain one guinea by some petty and shabby device, but, at the same time, causes us to lose the opportunity of gaining twenty guineas with half the trouble and double the honour!

Another proof that cunning is far more distinct than the multitude suppose it to be from talent, is to be seen in the fact that no one is so easily self-deceived as an extremely cunning man. He, clever fellow, can see every one's game, and no one can get even a peep at his! Yet somehow he always sees *too* far, and in endeavouring to avoid the plots which he supposes others might lay for him, but which in fact have never so much as entered their imaginations, plump he goes up against some ludicrous blunder which no man, having eyes in his head and making a proper use of them, could ever by any means stumble upon. Believing himself so much more adroit and quick-sighted than his neighbours, he never fails to add to his original shallowness of mind a good spice of acquired conceit; and not content with thinking himself the very perfection of cunning fellows, he would fain have other people to think him so. And accordingly he is ever full of anecdotes, being himself the invariable hero; he has made the best bargains, scented soonest and farthest off the advantage and profit of selling, when at a premium, the shares of the Joint Stock Company for the supply of ready-made timber in Jamaica, and of warming-pans in Sierra Leone; he it was who monopolised all the spice the very week before Christmas, and purchased every peck of coal in the Pool the very day before the navigation of the river was stopped by the "great frost;"—in short, if any thing particularly heartless, hateful, or contemptible, but "very cunning," is spoken, he either did it, advised it, or, at the very least, thought it would be done! Happily for the honest and more honourable part of mankind, the vanity of "cunning little Isaac" is generally far more than a match for his cunning; he is so proud of displaying his base and contemptible weapon, that he very rarely can wield it with any formidable mischievous effect; so fond of talking of the petty and shabby knaveries of which he has been guilty, that he very effectually prevents any one from giving him an opportunity to perform similar tricks again.

Against the practice of cunning, paradoxical as the assertion may sound, we are far less anxious to warn our readers, than against its approval. But in truth we hold it impossible for intelligent and studious people to be cunning. There is requisite to the character of a perfectly cunning man a something of unspeakable narrowness and ignorance—his very wishes are petty, and of the earth, earthy; the advantages, as he deems them, which he aims at attaining to, by the exertion of his cunning, are of a nature which would

* The mythologists inform us that Diana and Venus are but one and the same divinity; and Cicero says that she was thought to be the mother of winged Cupid.

† The Syrians, after the death of Solomon, and that the tribes had revolted, called him, metaphorically, the Sun, and his palace of Balbeck, the great temple of the Sun, (Heliopolis, according to the Greeks,) to which they appointed priests, and worshipped him as Apollo, under the similitude of a man, shining in robes of gold, and rays round his head; and their priests officiated there even down to the time of Plato's visiting them. Not only did the Greek merchants of Corinth copy the *chapiters*, (capitals,) that were upon the tops of the pillars, but also the ornaments, ox-heads, and wreaths, and cherubims, &c.; and the Ionic order was likewise copied by them, as may be gathered from Vitruvius, who says, 'Ion building a temple to Diana,' &c.

make them repulsive to a man of extended capacity and liberal feeling. But, unfortunately, men are not too prone, and especially very young men, to dig deep below the surface of things, and though they do not always imitate what they hear praised by others, they by far too frequently lend their voices to swell its praises still higher.

Still more clearly to explain our seemingly paradoxical assertion, we need only observe that, though we should most anxiously dissuade our readers from paying undue honour, or looking with undue admiration upon the perhaps necessary but certainly too much esteemed art of war, we should not feel it necessary to caution them against committing murder. An unwise admiration of war might be entertained by the gentlest and most innocent; but he who would wantonly imbrue his hands in blood must be already far beyond the influence of any admonition or instruction.

And so in the case of cunning; we hold it quite impossible for a well regulated mind to descend to the utter meanness of what is called cunning; but we do *not* hold it unlikely that persons, though themselves utterly free from this despicable quality, may be deluded by the mistaken praise of others into looking upon its possessors with respect instead of with contempt. All homage thus paid to vice or folly is so much injustice offered to virtue or wisdom; and we doubt if there would remain in existence one-tenth of the minor vices and follies which exist in such evil and annoying abundance, were it not that people are accustomed from their very childhood upwards to hear things called by names which do not fairly belong to them. Thus only, at all events, would it happen that ability has been attributed to men of cunning, men who at once avow that they have a great wish to overreach mankind; and while putting mankind upon their guard by the very avowal, lose ninety-nine out of every hundred of the fair opportunities they meet with of improving their property or otherwise advancing their particular interests, without injury to the interests or victory over the honest feeling of others. *These* advantages are the special reward of talent; and having them, it may, without any very great heart-heaviness, leave self-defeating activity and always unprofitable scheming to that marvellously shrewd and perfectly self-satisfied conjuror—CUNNING.

ON THE VALUE OF A GOOD MEMORY.

THE art of printing, by multiplying copies, so as to put them within the easy reference of all classes of people, has lowered the value of a retentive memory. It is better to refer to the book itself, than to the man who has read the book. Knowledge is now ready-classed for use, and it is safely stored up in the great common-place books of public libraries. A man of literature need not encumber his memory with whole passages from the author he wants to quote; he need only mark down the page, and the words are safe.

Mere erudition does not, in these days, ensure permanent fame. The names of the Abbé de Longuerue, and of the Florentine librarian, Magliabechi, excite no vivid emotions in the minds of those who have heard of them before; and there are many, perhaps not illiterate persons, who would not be ashamed to own that they had never heard of them at all; yet these men were both of them, but a few years ago, remarkable for extraordinary memory and erudition. When M. de Longuerue was a child, he was such a prodigy of memory and knowledge, that Louis XIV. passing through the Abbé's province, stopped to see and hear him. When he

grew up, Paris consulted him as the oracle of learning; his erudition, says D'Alembert, was not only prodigious, but actually terrible. Greek and Hebrew were more familiar to him than his native tongue. His memory was so well furnished with historic facts, with chronological and topographical knowledge, that upon hearing a person assert, in common conversation, that it would be a difficult task to write a good historical description of France, he asserted that he could do it from memory, without consulting any books. All he asked was to have some maps of France laid before him; these recalled to his mind the history of each province; of all the fiefs of the crown of each city; and even of each distinguished nobleman's seat in the kingdom. He wrote his folio history in a year. It was admired as a great curiosity in manuscript; but when it came to be printed, sundry gross errors appeared: he was obliged to take out several leaves in correcting the press. The edition was very expensive, and the work at last would have been more acceptable to the public if the author had not written it from memory. Love of the wonderful must yield to esteem for the useful.

The effect which all this erudition had upon the Abbé de Longuerue's taste, judgment, and imagination, is worthy of our attention. Some of his opinions speak sufficiently for our purpose. He was of opinion, that the English had never done any good since they renounced the study of Greek and Arabic for geometry and physics. He was of opinion, that two antiquarian books upon Homer viz. *Antiquitates Homerica* and *Homeri Gnomologia*, are preferable to Homer himself. He would rather have them, he declared; because with these he had all that was useful in the poet, without being obliged to go through long stories which put him to sleep. "As for that madman, Ariosto," said he, "I sometimes divert myself with him." One odd volume of Racine was the only French book to be found in his library. His erudition died with him, and the world has not profited much by his surprising memory.

The librarian, Magliabechi, was no less famous than M. de Longuerue for his memory, and he was yet more strongly affected by the mania for books. His appetite for them was so voracious, that he acquired the name of the glutton of literature. Before he died, he had swallowed six large rooms full of books. Whether he had time to digest any of them we do not know, but we are sure that he wished to have done so for the only line of his own composition which he has left for the instruction of posterity, is round a medal. The medal represents him sitting with a book in his hand, and with a great number of volumes scattered on the floor round him. The candid inscription signifies, that to become learned it is not sufficient to read much, if we read without reflection. The names of Franklin and of Shakspeare are known wherever literature is cultivated, to all who have any pretension to science or genius; yet they were neither of them men of extraordinary erudition, nor from their works should we judge that memory was their predominant faculty. It may be said, that a superior degree of memory was essential to the exercise of their judgment and invention: that without having treasured up in his memory a variety of minute observations upon human nature, Shakspeare could never have painted the passions with so bold and just a hand: that if Franklin had not accurately remembered his own philosophical observations, and those of others, he never would have made those discoveries which have immortalized his name. Admitting the justice of these assertions, we see that memory to great men is but a subordinate servant, a treasurer who receives, and is expected to keep faithfully, whatever is committed to his care; and not only to preserve

faithfully all deposits, but to produce them at the moment they are wanted. There are substances which are said to imbibe and retain the rays of light, and to emit them only in certain situations. As long as they retain the rays, no eye regards them.

It has been observed, that a recollective and retentive memory are seldom found united. If this were true, and that we had our choice of either, which should we prefer? For the purposes of ostentation, perhaps, the one; for utility, the other. A person who could repeat from beginning to end the whole Economy of Human Life, which he had learned in his childhood, might, if we had time to sit still and listen to him, obtain our admiration for his extraordinary and retentive memory; but the person who, in daily occurrences or interesting affairs, recollects at the proper time what is useful to us, obtains from our gratitude something more than vain admiration. To speak accurately, we must remark, that retentive and recollective memories are but relative terms; the recollective memory must be retentive of all that it recollects; the retentive memory cannot show itself the moment it becomes recollective. But we value either precisely in proportion as they are useful and agreeable. Just at the time when philosophers were intent upon trying experiments in electricity, Dr. Heberden recollected to have seen, many years before, a small electrical stone, called *tourmalin*, in

the possession of Dr. Sharpe at Cambridge. It was the *only* one known in England at the time. Dr. Heberden procured it, and several curious experiments were made and verified with it. In this instance it is obvious, that we admire the retentive local memory of Dr. Heberden, merely because it became recollective and useful. Had the *tourmalin* never been wanted, it would have been a matter of indifference, whether the direction for it at Dr. Sharpe's at Cambridge had been remembered or forgotten. There was a man, who undertook, in going from Temple Bar to the farthest part of Cheapside, and back again, to enumerate at his return every sign on each side of the way in its order, and to repeat them, if it should be required, either backwards or forwards. This he exactly accomplished as a playful trial of memory. This affords us a moment's entertainment; but if we were to be serious upon the subject, we should say it was a pity that he did not use his extraordinary memory for some better purpose. The late king of Prussia, when he intended to advance Trenck in the army, upon his first introduction gave him a list of the strangest names which could be picked out, to be learned by rote. Trenck learned them quickly, and the king was much pleased with this instance of memory; but Frederick would certainly never have made such a trial of the abilities of Voltaire.

(To be continued.)

ON THE EFFECTS OF TRAGICAL REPRESENTATION ON THE MIND COMPARED WITH THOSE THAT TAKE PLACE IN VIEWING REAL SCENES OF DISTRESS.

Concluded from p. 245.

FROM this last observation, as well as from those mentioned before, it is easy to perceive how exceedingly our emotions, on these occasions, differ from those painful feelings with which the human mind is affected in viewing real scenes of distress. In this last case the heart of the good man is opened to pity and benevolence, in the indulgence of which he in some degree alleviates his sympathetic feelings; but it is certain that many resort to the theatre nowise remarkable for their charity, and who studiously avoid all sights of real misery. This arises not from the want either of compassion for the sufferers, or of that propensity inherent in mankind to view scenes of distress, but from the passions, common to all, being in them overbalanced by a mean and selfish disposition. When their desire of tragical excitement becomes so ardent as to overpower their avarice, they resort to the theatre; they are often in the crowd at public executions; and in both places exhibit as much of the external signs of a sympathetic sorrow as the more generous and humane, for no demand in either case is made on their pockets.

In such situations, there being nothing to counteract their sympathetic feelings, they freely indulge them in hopes of abating part of that obloquy they are conscious of deserving for want of charity to the poor in distress. But their hopes are frustrated; for, from the uniformity of their character, they too frequently discover to all around them the obduracy of their hearts and sordid disposition, when assistance is wanted to relieve the unfortunate. These hypocrites in humanity, like all other false pretenders to virtue and goodness, from a desire to hide their foible, constantly preach up charity and benevolence. In all scenes of real misery, they, like the priest and the Levite, in the parable of the compa-

sionate Samaritan,* turn their eyes away and pass on the other side of the road, lest they should be compelled to some act of benevolence, suggesting a thousand subterfuges to hide, even from themselves, the degrading consequences and galling reflections which must result from such conduct.

But to return to our subject. If we take a review of the facts and observations in this dissertation, it will be found that the pleasing melancholy which we enjoy in the theatre is not the result of compassion alone, or of pity, or of any other simple affection of the mind; but is the consequence of several causes, the combined action of which produces this effect. Sympathy is, no doubt, the most powerful of them; but without the aid of the other concurring causes mentioned, it would fall greatly short of producing that degree of indulgent compassion, with which the generality of the audience during the performance of a tragedy are affected. For though none of the circumstances mentioned above, which contribute to a belief of the reality of the representation, taken singly, are of much avail in this way, yet their united force acts powerfully on the mind in producing and heightening the melancholy pleasure we receive in the performance. Take away even the company, the music, and the lights, as at a rehearsal in the morning, and how insipid is the enjoyment to what we experience in the evening, with every requisite to carry on the delusion, and to heighten our pleasure! The enjoyment we receive in the theatre from tragical representations, is of a compound nature, arising from a fluctuation of passions and emotions, of which sympathy seems to be the leading and predominant affection of the mind, the others being subordinate, but each

* Luke x. 30.

contributing its share towards the increase of our happiness. The sympathy we bestow on real objects of distress is of a more simple nature, being associated with benevolence only, and a small degree of curiosity. At public executions it is evidently curiosity that first seizes the mind; the impossibility of giving the smallest relief to the sufferer annihilates every hope of affording it, and sympathy, of course, acts only a subordinate part.

We have, in the earlier part of this article, endeavoured to throw some faint light on the several causes which operate on the mind in raising that sympathetic sorrow with which we are affected during the representation of a tragedy. We have likewise attempted to distinguish between the melancholy pleasure we receive on such occasions, and the disagreeable sensations with which we are affected in scenes of real distress. It will be found that in both cases there is an excitement of the mind, which mankind eagerly seek after with a solicitude proportioned to the expected degree of emotion. If the operation of such excitements of the mind is well understood, there will be no difficulty in accounting for the pleasure we receive from less degrees of the same fixed attention, in reading, contemplation, conversation, declamation, business, card playing, shows, and every other species of study or amusement; for without excitement neither happiness nor misery can exist.

GOOD AND ILL LUCK.

WERE mankind to exert but half as much pains and ingenuity in amending their ways as they exert in justifying them, "Utopia" would no longer be read as a pleasant dream, never to be realized. Oh the ten thousand excellent apologies that are ever ready to leap to the lips, and there usurp the place of the frank acknowledgment of error, heralding the honest and firm determination to err no more!

Abundantly provided as men are with excuses, they have some which they use far more frequently than they use others; a sort of pets, which the good folks' fancy can never be out of place or ill timed. Chief among these favourite ones are "Good Luck" and "Ill Luck." By the former, men speak of the prosperity of others, however well deserved because well earned; and by the latter, they deprecatingly forestal all censure upon their own idleness, extravagance, folly, incapacity, or vice!

"Bought the Oaks estate, eh? Could not have cost him a sovereign less than five thousand! Ah! some people have such luck! I remember when Smith would have been puzzled to find as many pence!" Such, we may be sure, will be the remarks we shall hear, if we tell a man, who has fooled away all his time and most of his money, that a neighbour, who has energetically as well as wisely and continuously improved both time and property, has at length made preparations for retiring from his toil to enjoy the *otium cum dignitate*. Industry, frugality, temperance, perseverance, skill—all these are set wholly out of view, and the great and honourable success which their possessor has by their means achieved, is set down, in one item, to the sole credit of good luck. But determined as the propensity of men is to attribute the success of others to good luck, they are not a jot less determined in their attribution of their own want of success to ill luck. Select the most notoriously idle and intemperate man in your village, lead him skilfully into the necessary train of thought, and as sure as you live you will find that he attributes the forlorn and comfortless state of his cottage, his own utter destitution of money, and his children's almost utter destitution of food,

not to his invincible addiction to gaping one half of the day away at the "town end," and sotting away the other half at the George,—not to the poverty produced by this reunion of idleness and extravagance, and perpetuated by the notoriety he has obtained on both points, and which makes every farmer in the neighbourhood afraid of him,—not to any one of these will you hear him refer his own and his family's condition, but simply to ill luck!

As in the most obscure village, so in the metropolis; as in the very lowest, so in the highest classes of men this species of self-delusion is ever at work; and instead of examining our own past course, noting the faults committed in it, and resolving to avoid those faults in future, we scowl upon our more prosperous competitors, as though the fruits of their skill and industry were plunder snatched from our proper grasp, and looking upon our own condition as though it were not the aggregate result of all the actions of our life, but a certain doomed matter, in producing which we have had no more share than in determining the colour of our hair, or the stature of our person.

We are far indeed from either supposing or insinuating that circumstances have no influence upon our course. The strongest and deftest swimmer may be unable to cross a river, if in addition to cleaving its rapid current he have to oppose the roll of its waters, curling beneath a furious wind, from the very point for which he is manfully, but all vainly struggling; but however smooth the stream and fair the wind, he who does not swim at all, may lie by its side and watch its gliding course for ever without getting an inch nearer to the opposite bank: and so with circumstances, they may, though very rarely, prove too strong for the union of the utmost skill and the utmost strength, but they must overpower indolence, conjoined to incapacity and ill-economy.

So far, however, are circumstances, or what is called luck, from being all-powerful in disposing the fortunes of men, that the very men who are ultimately the most successful in life, are precisely those who, at the commencement of their career, had the most tremendous obstacles to overcome, and the least apparent possible power to successfully strive against them; while on the other hand, if you meet with a singularly unhappy and deplorable person, you are almost sure to hear that he has "been better off," "seen better days," and so forth.

What a satire it is upon our sense, and upon our feeling too, that while we allow the sneer at the man who has, in the vulgar phrase, "sprung from nothing," to pass unproved in our presence, we allow ourselves to feel a weak pity for the man who has pursued selfish and foolish enjoyments, if no worse ones, until he has reduced himself to beggary from a state of comparative splendour and luxury! As though that "sprung from nothing," were not, in fact, a high compliment to the good qualities, moral and mental, of him to whom it is applied; and as though past prodigality were not sufficient cause for present pauperism, or the latter not a righteous and just judgment upon the former!

Conduct is fate. If we act wisely and worthily, we shall sooner or later, and in a greater or less degree, become reapers of the good we have sown; but if we consume our days in idleness or dissipation, poverty and suffering cannot fail to come speedily upon us; they, and the knowledge of what has caused them, will bring upon us contempt and obloquy; and nothing short of years of the most painful toil will ever suffice to convince society of the reality of our reformation. Whenever, therefore, our readers hear the ignorant or the thoughtless talking about good and ill luck, let them substitute in their own minds the more reasonable words—good and ill conduct.



ALNWICK CASTLE, NORTHUMBERLAND.

THIS noble castle stands on the northern brow of an eminence, on which the town of Alnwick is situated, and is the principal seat of the Duke of Northumberland. The hostile purposes for which it was originally erected are sufficiently evidenced by the singular ornaments that surmount its turrets. These consist of figures of stone, as large as life, representing combatants in every situation of military defence;—some in the act of lifting large stones, as if to hurl them down upon the heads of assailants; others discharging arrows, wielding battle-axes, and casting javelins. Grose believes that a castle was originally built upon the site of the present one by the Romans; for when a portion of the keep was taken down to be repaired, some years ago, under the present walls were discovered the foundations of other buildings; while the structure on which the present one is founded is said to have been begun by the Saxons, but on so limited a scale, that it did not attain any historical importance until the Norman era, when, in the reign of William Rufus, Malcolm III. of Scotland lost his life before its walls by a singular stratagem. While besieging the castle, he had so far reduced the garrison, that its provisions were all consumed; and dispirited with hunger, and hopeless of succour, the beleaguered were on the point of surrendering, when a gallant soldier, named Hammond, determined to make an effort for the salvation of his comrades. Word was sent to the besiegers, that the keys of the castle should be delivered and given to the king on the point of a spear.

No. 242.

Armed *cap-à-pié*, and bearing the keys as described, Hammond advanced, and Malcolm was so overjoyed that the siege should terminate so favourably for him, that he ran out of his tent, unarmed, to meet the welcome messenger,—when the soldier suddenly lowering the point of his spear, plunged it into the monarch's heart; and, clapping spurs to his horse, rushed into the river, swam the ford, and escaped into the castle. Edward, the king's eldest son, continued the siege with the bitterest rancour, in the hope of revenging the death of his father; but, exposing himself incautiously, fell also by an arrow from the castle. On the road to Bedford, near the town, this circumstance is recorded on a beautiful cross, an inscription on which runs thus:—

“Malcolm III. king of Scotland, besieging Alnwick castle, was slain here November 13, anno 1093. King Malcolm's cross, decayed by time, was restored by his descendant Eliza, Duchess of Northumberland, 1774.”

On the 12th of July, 1174, (the same day on which Henry II. received absolution for the murder of Thomas à Becket,) William III. king of Scotland, was taken prisoner near this castle. The event is thus related by Dr. Lingard, in his History of England. “The northern barons, to repress the ravages of the Scots, had assembled at Newcastle. On the morning of the 12th of July they rode towards Alnwick,—twenty-four miles in five hours—a considerable distance for men and horses, encumbered with armour. The country was covered with a thick mist, which, if it favoured their

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advance, concealed the position of the enemy. One of the number advised a retreat, but Bernard de Baloil cried out, 'If all return, I will go forward: Baloil shall never be reproached with cowardice.' At this moment the sun dissipated the fog; the castle of Alnwick glittered before them; and on one side in a meadow was seen the king of Scotland tilting with sixty of his companions. At first, he took the strangers for a party of his own men; but the English banner convinced him of his mistake. Surprised, but not discouraged, he struck his shield with his lance, and exclaimed, 'Now let us prove who is the truest knight.' At the first shock, his horse was killed, and as he fell to the ground, he was made prisoner. The Scottish lords immediately threw down their arms, and the victors with a long train of illustrious captives returned the same evening to Newcastle." William was condemned to deplore this event in a prison in Normandy, whither he was sent by Henry II. King John, shortly after this, burnt the castle down, but it was subsequently repaired.

The barony and castle of Alnwick continued in the possession of the Lords de Vesci, until the twenty-fifth year of Edward I. in 1297, when Lord William, the last of that title, having no lawful issue, unconditionally enfeoffed* them, by royal licence, to Anthony Beke, bishop of Durham, and titular patriarch of Jerusalem. In the year 1309, that prelate sold these possessions to Lord Henry de Percy, and from that time Alnwick Castle became, and has continued, the great baronial seat of the Percy family.

After the battle of Hexham, Edward IV. divided his forces into three bodies, to attack separately the castles of Bamborough, Dunstanborough, and Alnwick. The two first were soon taken, but the last was bravely defended until George Douglas, earl of Angus, advanced to its relief; and, by a dexterous stratagem, withdrew every soul from the castle, escorting them into Scotland without losing a man, in the very face of the enemy. On arriving at the castle, Angus arranged his forces in order of battle, as if he intended engaging the English; and, whilst the latter were busily engaged in preparing for the conflict, the earl drew up a select body of his stoutest troopers to the back gate, out of which the garrison issued; and each soldier mounting behind a horseman, rode off securely from the castle, concealed from the sight of the English by the intervening array.

It was in Alnwick Castle that Henry Percy, surnamed Hotspur, confined the prisoners he had captured at the battle of Halidon-hill; about the ransom of whom arose the celebrated quarrel between the house of Northumberland and King Henry IV. which led to the civil wars of 1403, but which ended in favour of the royal party at the battle of Shrewsbury.

On the death of Algernon Seymour, duke of Somerset, the Percy baronies devolved to Sir Hugh Smithson, who had married his grace's daughter, Lady Elizabeth Percy, in 1766. Alnwick Castle, which had become reduced to little more than a pile of ruins, was, by this nobleman and his consort, restored to more than its former splendour.

The present magnificent state of the castle, fitted up at the enormous charge of 200,000*l.* can afford but a faint idea of its appearance in feudal ages; when it was dark and inconvenient, with every thing contrived for security, and nothing for the sake of elegance. Under its present highly improved form, however, what has been substituted is as congruous to ancient *costume* as possible: and all within and without the mansion displays taste and judgment. The dwelling apartments form a castellated building, raised upon

an artificial mound in the centre of the enclosed area. These consist of splendidly furnished state bedchambers, a staircase, singular but beautiful in design, expanding like a lady's fan, and ornamented with a chain of escutcheons running round the cornices, which display the one hundred and twenty quarterings and intermarriages of the Percy family; together with the saloon, drawing and dining rooms, and library,—all which are fitted up in the Gothic style. But in the chapel, expensive and gorgeous decoration seems to have reached the utmost limit, presenting such a dazzling picture of ornamental grandeur as is not to be equalled in the kingdom. In this apartment is a sumptuous marble sarcophagus, dedicated to the memory of a late duchess; and the walls are decorated with the armorial bearings and genealogical tables of the illustrious house of Northumberland.

The park of Alnwick affords a series of pleasing views of the surrounding country. It stands on an acclivity, the base of which is watered by the river Aln. Near this domain is a grand modern structure, called Briesley's tower, which affords a view of wonderful extent. On a clear day may be seen from this Gothic column—Edinburgh castle to the north, Tynemouth castle in the opposite direction, Bamborough and Warkworth castles to the eastward; and a long line of the Grampian and Cheviot hills, with their circumjacent wastes—the scene of that olden hunt immortalised in the popular ballad of Chevy Chase, and in which one of the Earls Percy took so prominent a part.

ACCOUNT OF THE DEATH OF CAPTAIN COOK AT OWHYHEE.

SOME of the Indians, in the night, took away the Discovery's large cutter, which lay swamped at the buoy of one of her anchors: they had carried her off so quietly that we did not miss her till the morning of Sunday, 14th February, 1779.

Captain Clerke lost no time in waiting upon Captain Cook, to acquaint him with the accident. He returned on board with orders for the launch and small cutter to go, under the command of the second lieutenant, and lie off the east point of the bay, in order to intercept all canoes that might attempt to get out; and if he found it necessary, to fire upon them. At the same time, the third lieutenant of the Resolution, with the launch and small cutter, was sent on the same service, to the opposite point of the bay; and the master was dispatched in the large cutter, in pursuit of a double canoe, already under sail, making the best of her way out of the harbour. He soon came up with her, and by firing a few muskets, drove her on shore, and the Indians left her. This happened to be the canoe of Omea a man who bore the title of Orono. He was on board himself; and it would have been fortunate if our people had secured him, for his person was held as sacred as that of the king. During this time Captain Cook was preparing to go ashore himself, at the town of Kavaroa, in order to secure the person of Kariopoo before he should have time to withdraw himself to another part of the island, out of our reach. This appeared the most effectual step that could be taken on the present occasion for the recovery of the boat. It was the measure he had invariably pursued in similar cases, and at other islands in these seas, and it had always been attended with the desired success; in fact, it would be difficult to point out any other mode of proceeding on these emergencies likely to attain the object in view. We had reason to suppose that the king

* Put them in possession by fee.

and his attendants had fled when the alarm was first given; in that case, it was Captain Cook's intention to secure the large canoes which were hauled up on the beach. He left the ship about seven o'clock, attended by the lieutenant of marines, a sergeant, corporal, and seven private men; the pinnace's crew were also armed, and under the command of Mr. Roberts. As they rowed towards the shore, Captain Cook ordered the launch to leave her station at the west point of the bay, in order to assist his own boat. This is a circumstance worthy of notice; for it clearly shows that he was not unapprehensive of meeting with resistance from the natives, or unmindful of the necessary preparations for the safety of himself and his people. I will venture to say, that from the appearance of things just at that time, there was not one besides himself, who judged that such precaution was absolutely requisite; so little did his conduct, on the occasion, bear the marks of rashness or a precipitate self-confidence. He landed with the marines at the upper end of the town of Kavaroah; the Indians immediately flocked round as usual, and showed him the customary marks of respect, by prostrating themselves before him. There were no signs of hostilities, or much alarm among them. Captain Cook, however, did not seem willing to trust to appearances; but was particularly attentive to the disposition of the marines, and to have them kept clear of the crowd. He first inquired for the king's sons, two youths who were much attached to him, and generally his companions on board. Messengers being sent for them, they soon came to him; and informing him that their father was asleep at a house not far from them, he accompanied them thither, and took the marines along with them. As he passed along, the natives everywhere prostrated themselves before him, and seemed to have lost no part of that respect they had always shown to his person. He was joined by several chiefs, among whom was Kanynah, and his brother Koohowroah. They kept the crowd in order, according to their usual custom; and, being ignorant of his intention in coming on shore, frequently asked him if he wanted any hogs, or any provisions? he told them that he did not; and that his business was to see the king. When he arrived at the house, he ordered some of the Indians to go in and inform Kariopoo that he waited without to speak with him. They came out two or three times, and, instead of returning any answer from the king, presented some pieces of red cloth to him, which made Captain Cook suspect that he was not in the house; he therefore desired the lieutenant of marines to go in. The lieutenant found the old man just awaked from sleep, and seemingly alarmed at the message; but he came out without hesitation. Captain Cook took him by the hand, and in a friendly manner asked him to go on board, to which he very readily consented. Thus far matters appeared in a favourable train, and the natives did not seem much alarmed or apprehensive of hostility on our side; at which Captain Cook expressed himself a little surprised, saying, that as the inhabitants of that town appeared innocent of stealing the cutter, he should not molest them, but that he must get the king on board. Kariopoo sat down before his door, and was surrounded by a great crowd; Kanynah and his brother were both very active in keeping order among them. In a little time, however, the Indians were observed arming themselves with long spears, clubs, and daggers, and putting on thick mats, which they use as armour. This hostile appearance increased, and became more alarming, on the arrival of two men in a canoe from the opposite side of the bay, with the news of a chief, called Karemoo, having been killed by one of the Discovery's boats. In their passage across, they had also delivered this account to each of the ships. Upon that

information, the women, who were sitting upon the beech at their breakfasts, and conversing familiarly with our people in the boats, retired, and a confused murmur spread through the crowd. An old priest came to Captain Cook with a cocoa-nut in his hand, which he held out to him as a present, at the same time singing very loud. He was often desired to be silent, but in vain; he continued importunate and troublesome, and there was no such thing as getting rid of him or his noise; it seemed as if he meant to divert their attention from his countrymen, who were growing more tumultuous, and arming themselves in every quarter. Captain Cook, being at the same time surrounded by a great crowd, thought his situation rather hazardous; he therefore ordered the lieutenant of marines to march his small party to the water side, where the boats lay within a few yards of the shore; the Indians readily made a line for them to pass, and did not offer to interrupt them. The distance they had to go might be about fifty or sixty yards; Captain Cook followed, having hold of Kariopoo's hand, who accompanied him very willingly; he was attended by his wife, two sons, and several chiefs. The troublesome old priest followed, making the same savage noise. Keowa, the younger son, went directly into the pinnace, expecting his father to follow; but just as he arrived at the water side his wife threw her arms about his neck, and with the assistance of two chiefs, forced him to sit down by the side of a double canoe. Captain Cook expostulated with them, but to no purpose; they would not suffer the king to proceed, telling him that he would be put to death if he went on board the ship. Kariopoo, whose conduct seemed entirely resigned to the will of others, hung down his head, and appeared much distressed.

While the king was in this situation, a chief, well known to us, of the name of Coho, was observed lurking near with an iron dagger partly concealed under his cloak, seemingly with the intention of stabbing Captain Cook, or the lieutenant of marines. The latter proposed to fire at him, but Captain Cook would not permit it. Coho closing upon them, obliged the officer to strike him with his piece, which made him retire. Another Indian laid hold of the sergeant's musket, and endeavoured to wrench it from him, but was prevented by the lieutenant making a blow at him. Captain Cook seeing the tumult increase, and the Indians growing more daring and resolute, observed that if he were to take the king off by force he could not do it without sacrificing the lives of many of his people. He then paused a little, and was on the point of giving his orders to re-embark, when a man threw a stone at him; which he returned with a discharge of small shot, with which one barrel of his double piece was loaded. The man having a thick mat before him, received little or no hurt; he brandished his spear, and threatened to dart it at Captain Cook, who being still unwilling to take away his life, instead of firing with ball, knocked him down with his musket. He expostulated strongly with the most forward of the crowd, upon their turbulent behaviour. He had given up all thoughts of getting the king on board, as it appeared impracticable; and his care was then only to act on the defensive, and to secure a safe embarkation for his small party, which was closely pressed by a body of several thousand people. Keowa, the king's son, who was in the pinnace, being alarmed on hearing the first firing, was, at his own entreaty, put on shore again; for even at that time Mr. Roberts, who commanded her, did not apprehend that Captain Cook's person was in any danger; otherwise he would have detained the prince, which no doubt would have been a great check on the Indians. One man was observed, behind a double canoe, in the action of darting his spear at Captain Cook, who was forced to fire at him in his own defence, but happened

to kill another close to him, equally forward in the tumult: the sergeant observing that he had missed the man he aimed at, received orders to fire at him, which he did, and killed him. By this time the impetuosity of the Indians was somewhat repressed; they fell back in a body, and seemed staggered; but being pushed on by those behind, they returned to the charge, and poured a volley of stones among the marines, who, without waiting for orders, returned it by a general discharge of musketry, which was instantly followed by a fire from the boats. At this Captain Cook was heard to express his astonishment; he waved his hand to the boats, called to them to cease firing, and to come nearer in to receive the marines. Mr. Roberts immediately brought the pinnace as close to the shore as he could without grounding, notwithstanding the showers of stones that fell among the people; but ———, the lieutenant who commanded in the launch, instead of pulling in to the assistance of Captain Cook, withdrew his boat further off, at the moment that every thing seems to have depended upon the timely exertions of those in the boats. By his own account he mistook the signal: but be that as it may, this circumstance appears to me to have decided the fatal turn of the affair, and to have removed every chance which remained with Captain Cook of escaping with his life. The business of saving the marines out of the water, in consequence of that, fell altogether upon the pinnace, which thereby became so much crowded, that the crew were, in a great measure, prevented from using their fire-arms, or giving what assistance they otherwise might have done to Captain Cook; so that he seems, at the most critical point of time, to have wanted the assistance of both boats, owing to the removal of the launch. For notwithstanding that they kept up a fire on the crowd from the situation to which they removed in that boat, the fatal confusion which ensued on her being withdrawn, to say the least of it, must have prevented the full effect that the prompt cooperation of the two boats, according to Captain Cook's orders, must have had towards the preservation of himself and his people. At that time, it was to the boats alone that Captain Cook had to look for his safety; for, when the marines had fired the Indians rushed among them, and forced them into the water, where four of them were killed; their lieutenant was wounded, but fortunately escaped, and was taken up by the pinnace. Captain Cook was then the only one remaining on the rock: he was observed making for the pinnace, holding his left hand against the back of his head to guard it from the stones, and carrying his musket under his arm. An Indian was seen following him, but with caution and timidity; for he stopped once or twice, as if undetermined to proceed. At last he advanced upon him unawares, and with a large club or common stake, gave him a blow on the back of his head, and then precipitately retreated. The stroke seemed to have stunned Captain Cook; he staggered a few paces, then fell on his hand and one knee, and dropped his musket. As he was rising, and before he could recover his feet, another Indian stabbed him in the back of the neck with an iron dagger. He then fell into a bight of water, about knee deep, where others crowded upon him and endeavoured to keep him under; but struggling very strongly with them, he got his head up, and casting his look towards the pinnace, seemed to solicit assistance. Though the boat was not above five or six yards distant from him, yet, from the crowded and confused state of the crew, it seems it was not in their power to save him. The Indians got him under again, but in deeper water; he was, however, able to get his head up once more, and being almost spent in the struggle, he naturally turned to the rock, and was endeavouring to support himself by it, when a savage gave him a blow with a club, and he was seen alive no more.

They hauled him up lifeless on the rocks, where they seemed to take a savage pleasure in using every barbarity to his body, snatching the daggers out of each other's hands, to have the horrid satisfaction of piercing the fallen victim of their barbarous rage.

I need make no reflection on the great loss we suffered on this occasion, or attempt to describe what we felt. It is enough to say, that no man was ever more beloved or admired; and it is truly painful to reflect, that he seems to have fallen a sacrifice merely for want of being properly supported; a fate singularly to be lamented, as having fallen to his lot who had ever been conspicuous for his care of those under his command, and who seemed, to the last, to pay as much attention to their preservation as to that of his own life.

ON THE VALUE OF A GOOD MEMORY.

(Continued from p. 255.)

WE cannot always foresee what facts may be useful, and what may be useless to us; otherwise the cultivation of the memory might be conducted by unerring rules. In the common business of life, people regulate their memories by the circumstances in which they happen to be placed. A clerk in a counting-house, by practice, learns to remember the circumstances, affairs, and names of numerous merchants of his master's customers, the places of their abode, and perhaps something of their peculiar humours and manners: a fine lady remembers her visiting list, and perhaps the dresses and partners of every couple at a crowded ball. She finds all these particulars a useful supply for daily conversation; she therefore remembers them with care. An amateur, who is ambitious to shine in the society of literary men, collects literary anecdotes, and retails them whenever occasion permits. Men of sense, who cultivate their memories for useful purposes, are not obliged to treasure up heterogeneous facts. By reducing particulars to general principles, and by connecting them with proper associations, they enjoy all the real advantages, whilst they are exempt from the labour of accumulation.

Mr. Stewart has with so much ability pointed out the effects of systematic arrangement of writing, reading, and the use of technical contrivances in the cultivation of the memory, that it would be a presumptuous and unnecessary attempt to expatiate in other words upon the same subject. It may not be useless, however, to repeat a few of his observations, because, in considering what further improvement may be made, it is always essential to have fully in our view what is already known.

Philosophic arrangement assists the memory, by classing under a few general principles a number of apparently dissimilar and unconnected particulars. The habit, for instance, of attending to the connexion of cause and effect, presents a multitude of interesting analogies to the minds of men of science, which escape other persons. The vulgar feel no pleasure in contemplating objects that appear remote from common life; and they find it extremely difficult to remember observations and reasonings which are foreign to their customary course of associated ideas. Even literary and ingenious people, when they begin to learn any art or science, usually complain that their memory is not able to retain all the terms and ideas which pour in upon them with perplexing rapidity. In time this difficulty is conquered, not so much by the strength of the memory, as by the exercise of judgment; they learn to distinguish and select the material terms, facts, and arguments, from those that are subordinate, and they

class them under general heads, to relieve the memory from all superfluous labour.

In all studies there is some prevalent associating principle, which gradually becomes familiar to our minds, but which we do not immediately discover in our first attempts; in poetry resemblance, in philosophy cause and effect, in mathematics demonstrations, continually recur, and therefore each is expected by persons who have been used to these respective studies.

The habit of committing our knowledge to writing assists the memory, because in writing we retain certain ideas long enough in our view to perceive all their relations; we use fixed and abbreviated signs for all our thoughts. With the assistance of these, we can prevent confusion in our reasonings. We can, without fatigue, by the help of words, letters, figures, or algebraic signs, go through a variety of mental processes, and solve many difficult problems, which, without such assistance must have been too extensive for our capacities.

If our books be well chosen, and if we read with discrimination and attention, reading will improve the memory, because, as it increases our knowledge, it increases our interest in every new discovery, and in every new combination of ideas.

PERSIAN TAXATION.

DESPOTIC monarchs are far less personally injurious to the mass of their subjects than to the immediate attendants at their court. Upon these it is that the terrible outbreaks of the monarch's fierce temper fall with a crushing and irresistible power; upon these that his power inflicts horror, while it announces evil. And the higher the courtier's station, the more precarious is his condition; the more splendid his elevation to-day, the more complete may be his downfall to-morrow. Has he supplanted all rivals, triumphed over all intrigues? Has he gained at length the high place he has so long panted for? Ah! all that he previously did and suffered was as nothing to what must be done and suffered for the future. Hitherto he was only striving to supplant the few above him; henceforth he has the far heavier task of holding fast his own in despite of the envy, hatred, talent, and unprincipled recklessness of means, of the myriads beneath him. Nearer than ever to the despot's side, and closer than ever in the despot's confidence, so also is he more than ever liable to give the despot offence, and thus in an instant lose all the fruits of his life-long toil—if not, haply, life itself into the bargain. However high in favour he may be in the morning, he may be condemned to a sudden and undeserved death ere night-fall; and however securely he may have lain down to rest, his uprising may be to disgrace, ruin, the darkness of the dungeon, or the gleam of the headsmen's sabre! From these evils, resulting from the very proximity to the monarch, which the courtiers, in their blind ambition, so much desire, the humbler classes of the despot's subjects are free. He is to them rather an abstract idea of irresponsible power, than an irresponsibly powerful man; they hear his name and they cower before his myrmidons, but personally he has never injured them.

From this circumstance some writers have been led to infer that, to the great mass of a people, despotism is not an evil. The inference, however, is very far indeed from being correct. Exempted from the immediate despotism of the sovereign, the people at large are, nevertheless, subjected to that of his innumerable subordinates, and it must be a nice

discrimination indeed that could discover any thing in the tyranny of the thousand servants superior to that of the one master.

Shakspeare very happily makes one of his characters exclaim, "You take my life when you do take the means by which I live;" and the state of the mass of the population in despotic countries is frequently a state of punishment only just short of that of death, the taxes being so arbitrarily and rapaciously levied as scarcely to leave the miserable sufferers the means of dragging on their unhappy existence, until their fields are again smiling with plenty—to be again stripped by the hands of power!

If the poor of free nations were but thoroughly made aware of the extent to which, without the shadow of a reasonable cause, or even of a tolerably plausible pretext, the corresponding classes in some of the despotically governed countries of the East are plundered of their substance by the numerous and unconscionable imposts laid upon them, the whole evil speaking and evil acting tribes of demagogues would find their "occupation gone." Except those who have actually and for considerable periods of time resided in eastern countries, no one, perhaps, can fully understand the sweeping and remorseless extent to which tyranny and rapacity can carry fiscal exaction.

It is here that the poor subject of a despot is made to "feel the iron enter into his soul." He is never safe from extortion, save when actually suffering from absolute destitution; and even then it is no uncommon thing for the hand of tyranny to smite where it had vainly hoped to be able to grasp.

Persia is by no means the most oppressive of the eastern despotisms; but even there the imposts are oppressive to a degree of which the people of our happy country can form no adequate idea.

The Persian taxes are divided into three great classes: the Malieh, the Sadeer, and the Pesh-Reesh. The Malieh, levied partly in cash and partly in kind, are the taxes on land and residences. For a long time the tax on land amounted to only one-tenth of the produce, but gradually rose to rather more than one-fifth. Nominally indeed it is exactly a fifth, but the agents charged with the duty of collecting it have considerable genius at over-valuing and over-charging, and the mode in which the charge upon each cultivator is regulated is admirably well adapted to develop this genius to the utmost. The collector ascertains how many oxen are kept by the cultivator; assumes that each ox is sufficient to cultivate a certain portion of land; each portion of land is assumed to produce so much; and from that assumed produce so much in kind is deducted as the tax. At first sight all this seems perfectly fair; but scanty crops, and a thousand other circumstances, may so far reduce the amount of the actual below that of the assumed produce, that instead of paying one-fifth, the unfortunate cultivator may very frequently be called upon to pay a fourth, a third, or even a half of his actual produce! With so wide a latitude left to rapacious men, goaded on by a despotic power, and at the same time upheld by it in all wrong doing, not directed against itself, it will easily be supposed that the collectors of the land-tax in Persia are looked upon by the poor with about equal horror and hatred.

The house-tax is usually imposed *en masse* upon the largest and wealthiest town of a district. That town is answerable for the payment of the whole; its magistrates having the power to levy, at their discretion, the quota of the dependant or inferior towns and villages. Here a new door is opened to fraud and extortion. The tax is levied, not on the number of inhabitants, but on the number of houses; and

consequently the authorities of the chief town shift as much as possible of its burthen to the shoulders of the inhabitants of the inferior towns and villages, though they, in the very nature of things, have fewer trading or manufacturing facilities of procuring the means to bear it. In the case of the land-tax the cultivator of two acres has to pay proportionately as much as the cultivator of a thousand; in the case of the house-tax, the inhabitant of a miserable village has to pay proportionately as much as the inhabitant of a prosperous town, in which he is carrying on a profitable trade.

Of both the tax in money, and the tax in kind, there is no room to doubt that the collectors take a pretty considerable share for their own especial usufruct; but the legal disposition of the tax in kind is infinitely wiser than the manner in which it is raised. The moustoufe, or collector, has to register the amount of both cash and kind received; and the latter is hoarded in granaries in the district, and supplied as wanted to the troops. As they depend for their rations and forage on the moustoufe and his subordinates duly performing their duty; so these latter are aided in its performance by having the power to imprison and inflict corporal punishment upon defaulters in payment to them.

Even thus far, our readers will agree with us in thinking the situation of the poor subjects of the Schah very far from being an enviable one; but by far the worst, because the most undefined part of the exactions to which they are subjected still remains to be spoken of.

The Sadeer, like the "benevolences" of which we read in the earlier chapters of English history, is an arbitrary tax, demanded on any of those "extraordinary occasions," which despotic power and insatiable avarice have such facility in finding or making. The birth of a royal prince, the progress of the Schah through a portion of his dominion, the passage of an ambassador, of a favourite, or of a body of troops; any excuse, good, bad, or very indifferent, suffices to bring down this new infliction upon the heads of the trampled and despised people.

An order is given to the moustoufe to raise a certain given sum of money, within a certain stated space of time. His subordinates, who buy their places, and are of course anxious enough to catch at every opportunity, fair or unfair, of turning them to profitable account, are instantly put on the alert; and then commences a scene of oppression on the one hand, and suffering on the other, enough to sicken the very soul of any one not hardened by familiarity with it.

The sum demanded by the government from the moustoufe is by him increased in his demand upon his subordinates; and each of them, again, increases the quota demanded from him upon the unhappy wretches whom he is commissioned to plunder. Now, from the moustoufe to the lowest of his subordinate collectors, there are very many intermediate classes; and when we consider that the original demand of the government is increased by each of these, a collector of any one of these classes having no other restriction upon his extortion than his conscience, or more properly speaking, his notion of the possibility of getting his demand complied with, we may easily imagine that by the time the demand actually comes home to the door of the unhappy tax-payer, it is of a perfectly frightful magnitude.

The mode of collecting the tax is just as ungentle as the mode of increasing it is unconscionable. The collectors demand money; if it be in existence they are not prevented from finding it by any excessive delicacy in making free in their search of another man's; nay, if there be no money, so there be money's worth they are not at all churlish about taking the sadeer in kind—at their own valuation! But

woe to the unfortunate fellow who has neither money nor goods with which to meet the wishes of these amiable officials. He is abused and threatened, and if abuse and threats are insufficient, as on the principle that *ex nihilo, nihil fit*, they needs must be, to extract gold from an empty purse, or goods from an empty house, the defaulter, after being bastinadoed within an inch of his life, is dragged off to a squalid dungeon, there to repent at his leisure of the heinous offence of being destitute at present, because robbed to the last coin at some former time. Mr. Scott Waring, a highly intelligent writer, states that he has repeatedly witnessed these distressing consequences of a brutal and barbarous system; and it is quite obvious that, even setting aside the ill effects which such extortion must of necessity produce upon all the profitable pursuits of the people, by paralysing the hand of industry, such a system cannot fail to have a very bad influence upon the moral character of the people; firstly, by accustoming them to a slavish and unreasoning submissiveness, fatal to all manly feeling, and, secondly, by imbuing them with a propensity so strong as to resemble a second nature, to escape from the violence they cannot openly resist by falsehood and cheating.

By way of parenthesis, we may remark, that there are but too abundant evidences of both these ill effects of the sadeer upon the morals of the Persian people. An anecdote illustrative of each effect is all that we can at present contrive to find room for. The Persian soldiers are by no means remarkable for their contempt of danger; in fact, though there have been many and brilliant instances to the contrary, their troops are not far, generally speaking, from deserving to bear the unpalatable title of cowards. They do not scruple to confess that war would be a far more desirable avocation than it now is, did it not involve the chance of being killed; and we are told by good authority that a Persian general held in no mean repute even on the score of personal courage, unhesitatingly confessed that he and many of his men were kept at a respectable distance by two Russian soldiers, who alternately fired at them, and at length retired unscathed and unimpaired! If such base pusillanimity seem at first sight quite incredible, let it be remembered that in Persia every man is liable to be called upon to take up arms, and that the beaten and plundered peasant of to-day is by no means the best possible person to convert into the fire-eating hero of to-morrow.

Of the prevalence of falsehood among Persians, especially among those of inferior ranks, a thousand instances might be given; in point of fact they seem to suppose speech to be merely given for the purpose of deception. A European who had been grievously disappointed on repeated occasions by a Persian workman, was at length thoroughly put out of patience, and he sharply and plainly reproached the delinquent with an addiction to falsehood. So far from deeming himself affronted by such a charge, the Persian calmly lifted his large dark eyes to his reproacher's countenance, and quite coolly said, "And what should a poor Persian do if he could not lie!" The *naïveté* of the demand might excite a smile if the terrible moral darkness and debasement implied by it did not occasion feelings of mingled disgust and pity.

Returning to our proper subject, we must caution our readers against supposing that we have even yet described all the miseries to which the Persian is subjected by the equally blundering and brutal fiscal system of his governors. Besides the taxes of which we have fully spoken, and those levied upon dancers and certain other classes of people, there is the pesh-reesh; this consists of presents, which must be made on the festival of New Year's Day, and on certain state occasions. Though called presents, these, in fact, are as

arbitrary taxes as any of those of which we have hitherto spoken. The chief officers of state must give these presents to the Schah, or his first minister, lower dignities to higher ones, down to the very lowest grade, and these, in their turn, extort them from the miserable wretches who are in immediate subjection to them. Every ambassador is subject to this tax; the governor of a town who gives shelter to a foreign traveller expects one, and expects one of at least a certain value, and the very judges entrusted with the administration of justice, will unblushingly demand their pesh-reesh, ere they will pronounce their decision in favour of suitors, who do not happen to be too powerful to be despised and trampled upon.

Weighed down by so many and such oppressive burthens, it is little to be wondered at, that the great body of the Persian people are in a state far beneath that of many nations inferior to them in all the advantages that can be conferred by soil and climate.

SERPENT CHARMING.

THE numerous superstitious ceremonials of the Hindoos render them especially liable to be cheated by impostors; and, accordingly, in no other country in the world is there such an abundance of jugglers, conjurors, magicians, and the like.

Among the numerous impostors who thus fatten upon the folly of their fellow-creatures, none are more impudent, and few, if any, more prosperous, than the serpent-charmers, or Pambatees. These fellows generally carry about with them in baskets, seven or eight huge snakes, which have been carefully deprived of their poison-bag. To a hollow calabash, a mouth piece is affixed, and to the other end, a perforated tube with finger holes, like those of the flute. Upon this instrument the Pambatees play some not unpleasant strains, and the snakes uncurl themselves, and move their heads as if keeping time to the music.

If the profession of the Pambatees merely included this not uninteresting exhibition of the serpent's love of music, we should have nothing to object to it; but these cheating fellows have the impudence to pretend that as they can influence the tame and disarmed snakes, so also they can influence wild ones. Accordingly, as most parts of Hindostan are dreadfully infested with venomous reptiles of the most fatal description, the services of the snake-charmers are in constant requisition. Concealed in various parts of their raiment they have tamed serpents of different kinds, and when they are sent for to any place to exercise their pretended craft of snake-catching, they dexterously elicit from their employers what kind of snake it is by which they are annoyed. This done, the snake-charmer places himself opposite to the suspected haunt of the reptile, and commences his musical performance. At a particular part of it, the snake he requires issues from its hiding place in his garment; he seizes it, holds it up in triumph before his deluded employer, and obtains a reward proportioned to the employer's wealth, and to his gratitude for the supposed deliverance from a deadly enemy.

The fraudulent extortion of the money is in itself quite bad enough; but the wickedness of the imposture by no means ends there. Having, as he supposes, witnessed with his own eyes the capture of the dreaded reptile, the dupe naturally lays aside the caution with which he had hitherto approached its haunt; and the consequence is, that he or some one of his family is pretty sure to become a victim. It

is astonishing that an evil of such magnitude does not call forth some strong measure of remedy from the Anglo-Indian government, for it is pretty certain that the great majority of those who lose their lives by the bite of serpents, owe their destruction solely to the false confidence inspired by this imposture.

So skilfully do the snake-charmers cheat the sight of the beholders, that Europeans as well as natives were for a long time imposed upon; and even that acute observer and intelligent writer, Mrs. Graham, speaks of their ingenuity in terms of the warmest admiration. That the pretended feat of skill, however, is only an impudent and wicked imposture, was very clearly proved some years since; so clearly, indeed, that even the impudent jugglers themselves were fain to confess it.

Some English gentlemen, who had seen too much of Indian imposture to put any very implicit faith in bold assertions, resolved to put the question at rest. Accordingly they sent for a party of snake-charmers, and desired them to decoy from an outhouse, certain serpents which they represented to be there. The gentlemen wished to stipulate for the death as well as capture of the reptiles, but to this our shrewd friends the snake-charmers positively refused to consent. On being pressed to give a reason for so seemingly strange a reluctance, they affirmed that their power over the snakes would be at an end were they to destroy any one; a compact existing by which the snakes were to be safe from injury. This reply still farther excited the suspicion of the English gentlemen, who rightly enough judged that the true reason was an unwillingness to destroy well-trained instruments of imposture, which could not be replaced except at a considerable expenditure of time and money. The point, however, was urged no farther, and the snake-charmers commenced their operations. After parading about with much ridiculous gesticulation, the chief of them suddenly stopped before the supposed retreat of the reptiles, and commenced his music. He continued his performance for some time, and just as the attention of the gentlemen seemed somewhat relaxed he darted swiftly forward towards the hole of the supposed haunt, and in an instant, a huge serpent was seen curling and writhing in his grasp. So adroitly was this manœuvre performed, that though the company were convinced that a trick had been played, no one was able exactly to make out how it was done. But one of the gentlemen observing that the dexterous performer wore a long and very voluminous robe, said nothing as to his suspicion of fraud, but quietly requested that previous to performing his next feat of capture, the charmer would be good enough to lay aside his robe. The confusion he manifested at this request still farther increased the suspicion of the gentlemen; nor was that suspicion at all weakened by the fact that the snake which was supposed to be fresh caught crept into a basket which the charmer had with him, and curled itself cosily round as if quite at home.

The charmer in chief, and his two companions, having divested themselves of their great robes, recommenced their ceremonials, but after fooling away upwards of an hour, they had not caused a single snake to honour them with its good company. The trick being thus partially discovered, the gentlemen plainly charged the charmers with their imposture; and the fellows then frankly confessed that their pretended art really was a cheat, and even showed the various pockets contrived in different parts of their vestments for the shelter of a variety of snakes.

The practice is to the full as ancient as it is impudent and mischievous; for we read in Scripture of "the deaf adder, which listens not unto the voice of the charmer,

charm he never so wisely." As the imposture is now known to every intelligent European residing in India, it is to be hoped that it will in time be fairly and generally demonstrated to the natives; for the danger from serpents is but too terrible in itself to need any increase from a blind, but wholly ill-founded, confidence in the pretended skill of the serpent-charmers.

AUTHORSHIP AS A PROFESSION.

WE are induced to make a few remarks upon this subject, by a letter we have just received from a reader of the GUIDE TO KNOWLEDGE.

Our correspondent asks our opinion as to the practicability of his earning an income "sufficient to maintain him respectably by the exercise of his pen." The question involves facts which cannot be too widely known, for it seems to be but too commonly supposed that authorship is the end and aim of all study. To this most unfortunate error many young men of really good talents have owed years of poverty, and of the privations and sufferings which excessive poverty inflicts. A mistake capable of producing a result so lamentable, must not be passed by without our notice; were that to be the case it would be but too probable that we should, unconsciously and unintentionally, but not a whit the less effectually, aid in making professional authors of persons possessing more inclination than aptitude for that pursuit, and at the same time, unpossessed of the pecuniary means of supporting themselves during those years of obscure struggling, which are inevitably the lot of all authors, except those of the very highest genius.

Literature has its prizes—all see them; it has also its blanks—to them the aspirants to literary honours, and the profit connected with them, seem to be impenetrably blind. The success of such poets as Byron and Moore, and of such prose writers as Walter Scott and E. L. Bulwer, is vast and dazzling. Precisely so; but behold how splendid is their genius! For one such author as any one of those four it is in the very nature of things that there should be a million of men without a tithe of his inherent aptitude, to say nothing of his vast and various acquisitions. Is it not, then, a folly, almost amounting to monomania, for the herd of those who—

"Pen dull stanzas while they should engrass,"

to dream of emulating the result, though perfectly incapable of imitating the process?

Well, but our ambitious young friends may say, there is surely a very wide gulf between the splendid success of such men as those spoken of above, and the utter failure which steepens the unsuccessful author to the very lips in poverty. Doubtless there is; but the difference refers rather to reputation than to profit—for a merely "respectable" writer, like a merely "respectable" actor, can obtain but a very moderate remuneration.

Very great ability, not amounting indeed to what is emphatically called "genius," and very great attainments, added to a positively Herculean power of steady and sustained application, are absolutely necessary to enable an author, devoted to what may be called the *drudgery* of literature, to earn as much as is usually paid to a tolerably good mechanic; and be it remarked, that it is to this *drudgery*, and not to first-rate original composition, that an author, having only average ability, and having only his pen to rely upon for support, must look for his employment.

Well; let us suppose our young aspirants to be possessed of the necessary ability and industry. Except from some fortunate and rare accident in his favour, he must lay his

account with "toiling for years before his qualifications will be sufficient to procure him as much employment as will afford him an exemption from absolute want. And yet, during all these years, he must study zealously, as well as write industriously; and we need scarcely say that his studies necessarily entail expenses upon him such as his miserable income can by no means fairly afford. Nor let it be supposed, that to obtain any employment at any, however humble rate of payment, is altogether the easiest matter in the world. We are quite aware that there is a vast amount of capital employed in publishing; but there is also a tremendous amount of competition for the labour thus created. Not only has the young author to compete with a host of persons who have been as imprudent as himself in allowing their sanguine hopes to overcome the suggestions of more prudent feeling; not only has he to undersell this host of people, who are as hungry and as clever as himself, and who, like him, have only the pen for a bread-winner; but, in addition, he has to compete with thousands of persons as well qualified for writing as himself, who write merely as amateurs, and never dream of asking for payment for their lucubrations.

The result of all this is, that a more wretched life than that of an obscure author, who has nothing save his pen to depend upon for support, can hardly be conceived. His expenses are far heavier than those of a mechanic, his income not only far less as to annual amount, but also far more precarious as to periods of receipt; and he may lay his account with being miserably poor during all the most precious years of his life, even if he do not die the inmate of a workhouse.

In drawing this gloomy sketch of the life of an author, we speak from close and careful observation; and be it observed, neither the public nor "the trade" are to blame for the melancholy truth. The supply exceeds the demand; and he who, in defiance of his knowledge of that fact, persists in endeavouring to live by his pen, must blame only himself if he meet with no better fate than that ingenious speculator who sent out to Jamaica the very appropriate cargo of several hundred dozen of warming-pans.

In truth, a poor man ought never to look to literature in the light of an important source of profit; and the less he look for from it, or, in other words, the more completely independent of it he can be for daily bread, the more likely is it to become profitable to him. With reference to the particular correspondent whose question has called forth these remarks, we beg to assure him that his excellent handwriting is a gift far more precious and more available to profitable purpose than the power, which he certainly has, of writing common places in verse of unexceptionable rhyme and rhythms. We must sincerely adjure him not to look to literature as a trade, or he will find it a bitter bad one. But verse writing! verse writing as a means by which to win bread! there is not an editor, from the magazine editor to the editor of a penny periodical, who does not annually reject a hundred weight of "respectable" rhymings, which the authors would be only too happy to see in print, without any reference to profit. The age is essentially utilitarian in its tastes and necessities. Plain, shrewd, common sense, in plain and pure English, is the article for the literary market. Even prose fiction must have sound sense to recommend it; and, except some half dozen of great and well-known poets, we doubt if a man could dine once a week upon a hundred verses a day.

We should not have any objection to any friend of ours being an author; but right sorry should we be to see any of our friends rely for their subsistence upon that most precarious and unhappy of all professions—professional authorship.

No. XII.—SELF-INSTRUCTOR IN BIOGRAPHY.

NATHAN MEYER ROTHSCHILD.

THE subject of our present biography was, without doubt, one of the most celebrated and important men of this age. At about a quarter past four, every day (Saturdays and Sundays excepted,) he might have been seen on the "foreign" side of the Royal Exchange, leaning against a particular pillar of that edifice; thus making himself—although the richest man in this country as easily accessible on matters of business as the humblest merchant in the city.

The origin of the enormous wealth of the family of the Rothschilds is thus related in Mr. McGregor's entertaining work, entitled "My Note Book."

"When the French crossed the Rhine, the sovereign of Hesse-Cassel carried his jewels and money to Frankfort. The reputable character of old (Moses) Rothschild induced the prince to deposit with him some millions of thalers. The French were actually entering Frankfort when Rothschild succeeded in burying the prince's treasure. They left him not one thaler's value of his own money, but the prince's property was saved; after the French marched out from Frankfort, Rothschild increased his business cautiously, by means of the prince's money, until 1802, when the latter returned. He called, without any hope, on the honest Jew, and when he asked Moses 'if the robbers took all?' great was his joy when he related the whole story. 'As I was without a kreutzer of mine own,' continued he, 'and so much good money of your highness's here, and doing no profit; and as I could get high interest for it from the merchants, I began to use it by little and little. I have been successful, and it is now only just that you should have it all back, with five per cent. interest.' 'No,' said the prince, 'I will neither receive the interest which your honesty offers, nor take my money yet out of your hands.'"

Nathan Meyer commenced his career in England as a broker or commission agent at Manchester, for the purchase of Lancashire and Yorkshire fabrics, to supply the German market. In these speculations he was successful, and would have doubtless continued had not the decrees of Milan and Berlin put a stop to the English manufacturing trade in Italy and Frankfort.

In consequence of obtaining early authentic information of the escape of Napoleon from Elba twenty-five hours before the British ministry, the late Mr. Rothschild cleared immense sums by his safe speculations on the Stock Exchange, and he was similarly fortunate in obtaining the news of the results of the battle of Waterloo.

It is said that so little was known of the resources of this eminent capitalist, when he proposed for Mrs. Rothschild, that his father had some doubts about the eligibility of the match. These scruples were, however, overcome, and the happy couple became a pattern of conjugal fidelity.

The immediate cause of his death was fatigue in a journey, undertaken in order that he might be present at the marriage in the family lately celebrated in great splendour in the town of his birth, and at which the four brothers assembled from Vienna, Naples, Paris, and London, under the roof of the oldest brother, who resides in Frankfort, and in presence of their mother, a remarkable woman, still living. The hoarded gold of Isaac of York was not more lavishly offered by the fair Rebecca to restore health to Ivanhoe than the good bills of the Rothschild family, scattered as carefully all over Europe, have been devoted to buy the recovery of Baron

No. 251.

Nathan. The expenses of his sickness are said to have amounted to many thousand pounds in fees alone.

The remains of Mr. Rothschild were finally deposited in the Jews' burying-ground, on the morning of the eighth of August; and Dr. Herschel, the Rabbi, delivered a most feeling oration, in which he stated that Mr. Rothschild contributed large sums to many public charities, both of his own sect and those of Christians; he was also in the habit of depositing in Dr. Herschel's hands, from time to time, certain sums for the relief of any cases of urgent distress that might be sought out by the venerable doctor.

The will gives no statement of the amount of the property accumulated, nor of the kind of securities in which it is invested; so that upon that point public curiosity will remain ungratified. The testator had given to each of his sons on their coming of age 25,000*l.* which the will directs shall be made up to 100,000*l.* in each case. The business is left to the three sons that are now of age, without any distinction or preference. They are to be guided by the advice of their uncles, and enter into no new undertaking on their own account without previously advising with, and obtaining the consent of their mother.

The testator has bequeathed nothing to public charities, servants, or dependents. He has entrusted the whole of this arrangement to Mrs. Rothschild, to act upon her discretion, without any control from the other executors; and the document breathes throughout the strongest feeling of affection for Mrs. Rothschild, whom the testator describes as being in the strictest sense of the term a participator in all his joys and sorrows from the first day they had been joined together.

A FEW MORE WORDS ON POPULAR SUPERSTITIONS.

WHILE writing our former articles on popular superstitions, we omitted to mention one of the most senseless of them; one which, to say the truth, we really supposed to be fairly laughed out of existence. We have just now, however, been very completely and disagreeably undeceived. An advertisement in one of the leading London papers announced for sale, the other day,—what think you, reader?—"A child's caul, in excellent preservation!"

Yes, in the nineteenth century, when the human mind has made so many and such noble steps towards improvement, and when so many high-hearted and hopeful philanthropists are exerting themselves in every direction to dispel the clouds of ignorance, and to render the mass of mankind happier by rendering them wiser;—yes, even now there are persons weak enough and impudent enough to pretend that seagoing people can insure safety from drowning by the facile act of carrying with them a child's caul!

Even the impudence of imposture must, one would fain suppose, be considerably abashed and held in check by the very great increase which has every where been made to the general store of intelligence, and to the mode as well as the materials for thinking. It is probable, therefore, that as the demand for cauls has decreased, so the impudent

price demanded for those utterly worthless articles has been abated. The advertisement to which we have referred affords us no date upon which to form a correct opinion upon that point. No price is named, so the modest advertiser will very likely content himself with the utmost sum he can cajole some silly person to pay; but even within our own remembrance it was by no means uncommon for such a sum as from fifteen to twenty pounds to be demanded.

Seriously to argue upon the insultingly gross imposture which ascribes to the caul the property of averting death by drowning, would be dishonest towards our readers, as uselessly occupying their space; and disrespectful, as implying a supposition of their absolute destitution of common sense. But while the superstition itself is utterly beneath any thing like refutation, the impudence of giving it publicity, and endeavouring, by means of it, to extort money from the ignorant, calls for serious and severe reprobation. Independent of the baseness of defrauding people of their money, there are two other considerations which call for remark. The credulous and ignorant seaman, who is deluded into expending his money to secure the protection which the caul is alleged to be capable of affording, is of course thoroughly confiding in the assurances made to him by the ignorant or guilty vendor. Being thus thoroughly persuaded that the caul will protect him against death by drowning,—is it at all assuming too much to say, that the proverbial gallantry and imprudence of the seaman will be almost inevitably increased to the uttermost recklessness? We think not. We think that, under such circumstances, the seaman would not fail to be thrown completely off his guard; and thus to add, by his own imprudent venturing, and want of proper precaution, to the many perils which, unhappily, are inseparable from his useful and laborious way of winning his means of subsistence. And, most assuredly, should loss of life take place under such circumstances, the victim of imposture on the one hand, and credulous ignorance on the other, would be, morally speaking, as completely *murdered* by the impostor's false representations, as he would be by his knife, did he stab him to the heart! The consideration of even this single fact, which the slightest reflection should suffice to make obvious, ought surely to prevent the conductors of every respectable paper from allowing such advertisements to appear in their columns. There is not one of those conductors who would not shudder with horror at the thought of being instrumental in causing the murder of a fellow-creature by shot or steel; how then can they aid in perilling the lives of a whole ship's company by aiding in propagating what *they*, at least, must know to be a falsehood so gross, that it would be absolutely ludicrous if its mischievous tendency did not render it shocking;—how, we ask, can they lend their aid to such perilous imposture as this, and yet hold themselves guiltless? Certainly they can only do so in utter want of reflection upon the subject. And, then, look at the injury done to the minds of many by this trap set to delude some one! How many thousands of our peasantry there are, for instance, who, seeing such an announcement in a "London paper," would thenceforth be absolutely contemptuous in their indifference to any efforts at removing so gross an error from their minds. You might as well attempt to persuade them to disbelieve their own existence!

And what must intelligent foreigners think of us? At what a low amount must they rate either our understanding or our honesty! Let us only fancy such an announcement in a respectable London newspaper, read before an assemblage of educated Germans. How they would despise the intelligence of the English press, on the supposition of the editor having allowed such an announcement to appear in

his paper, from being ignorant of its imposture; and how they would turn in very loathing from contemplating the venal subserviency which they would infer from the deliberate circulation of a known falsehood, for the sake of the paltry payment of certain sterling shillings!

We do, in all sincerity and warmth, entreat our contemporaries, whose fine talents no one can hold in higher reverence than we do, to preserve their columns, in future, from being disgraced by any such aid to imposture. As for the people who advertise, we would make extremely short work with them. To sea they should go on the first stormy day; or, if they declined entrusting their safety to the boasted caul, they should forthwith be allowed to amuse themselves with a twelvemonth's solitary confinement, diversified with bread and water, and as much hard work as would make them remember their punishment during the remainder of their lives.

ANCIENT RUINS.

HOWEVER much the opinions of men who have any claim to be considered men of taste may differ upon other points, the stern, grey ruins of the high places of an elder day never fail to excite a mingled feeling of sadness and admiration. Even those who are but slightly acquainted with the literature and the philosophy of old Greece, cannot wander among the ruins of the now desolated city of Minerva* without experiencing in great intensity the hallowing and hallowed feeling. Something of the sacred and the touching, as we view such monuments of departed greatness, mingles with an exalted and purified sense of power; and, as we gaze upon their decay, we infallibly and invariably think of that inevitable hour when the proudest of the high places of our own time and our own nation shall, in their turn, be made fit to suggest sad thoughts to the minds of the thoughtful, and sad feelings to the hearts of those who can feel.

Perhaps, however, the only partial depopulation of Greece prevents us from extending to that unhappy land so perfect and passionate a sympathy as we should bestow upon her were she wholly destitute of a Greek population. The very degradation and consequent depravation of the people, contrasting at once so forcibly and so painfully as it does with—

“—— The last halo of the chiefs and sages,
Who glorify her consecrated pages,”

unfits us for feeling a full measure of regret for the fallen structures in which Pericles thought, and Alcibiades banqueted. We contrast the past and the present too strongly, too vividly, and too painfully, to be able fully and entirely to give up our hearts to compassion for the latter. Not so is it when we bestow our regards upon Thebes or Palmyra; then it is that, in all its desolating force, we feel the sympathising sorrow for what *is*, and the harrowing anticipation of that which, more vividly than ever, we feel and lament *must be*. Palmyra, we think, even more than Thebes, is the very home for a melancholy heart. Here dwelt in glory, in gladness, and in power, the high-souled Zenobia, the woman-chieftain and the woman-politician, who, all woman as she was, feared not to measure her strength with that of mighty and haughty Rome; and so comforted herself as to win the admiration of even the stern and despotic rulers of that stern and despotic people!—There she dwelt, in the pride of beauty and of power; and *now* look around upon the scene of her gladness and her pride!

* Athens.

The ruins that remain of the once populous and magnificent Palmyra are not very well described by the majority of those who have written upon them; and who speak of them with very insufficient care for discrimination. To read these authors, a person not otherwise informed upon the subject might, without any imputation upon his perspicacity, imagine them all to be of like antiquity, and of one or rather similar aspect. This, however, is as far as possible from being the true state of the case. The ruins are of two very distinct and distant eras. One portion of them are in the very last stage of visible decay, and obviously crumbling under the effect of time alone; the other portion is massive and still strong, presenting a thousand marks of their violent disruption at the stern command of the Roman emperor Aurelian.

Of the exact age of the older portion, it would be mere pedantry and affectation to attempt to speak with any thing like even a tolerable approximation to correctness. Let us only consider how favourable is the climate to the durability of architecture, and then,—noting how ancient we are sure even the still massive and comparatively uninjured portions are, and comparing their condition with that of the more ancient fragments which literally crumble beneath our touch,—then let us pretend, if we can venture to do so, to say how long it is since those grey and crumbling ruins rose proudly up from the plain to minister to pride, or to contain grandeur; to serve the purposes of public worship, or to resound with the loud tones of revelry and wassail!

Of the more modern ruins of Palmyra, we can speak with greater confidence. On several of their gigantic fragments there are inscriptions; none of them bear date earlier than the lifetime of our Saviour, and none later than the time of him whose word of power consigned the high places of Palmyra to destruction—the Emperor Aurelian.

In the Scriptures and in Josephus, Tadmor in the Desert, Palmyra, and Thadmer, are made mention of; and the few miserable Arabs whose petty village at this day occupies the area of the once magnificent temple of the Sun, call it Tadmor.

At first sight it would seem strange that one of the most magnificent cities of the olden day should have been located in an arid and wretched desert; but a little farther consideration will teach us the cause of this seeming anomaly. From its geographical position, Palmyra formed an admirable resting-place for caravans or single traders, journeying between the Mediterranean and the Red Sea. The mere dreariness of desert travelling was, in itself, no doubt, a very great evil; and to that evil, as indubitably were added very many and very great actual perils and sufferings. None of these, however, bore any comparison to the horrible torture of thirst; a torture which, beyond certain limits, neither man nor beast could survive. We, who live in a land in which that precious element, water, is so plentifully bestowed upon us as absolutely to have no nominal value,—we can form only a very faint idea of the torture inflicted by thirst upon persons unhappy enough to be subjected to it while crossing the arid sands of a desert. In the Scriptures, and, we believe, without a single exception, in the eastern poets, the unspeakable value of a spring of water gushing forth amid the sterile sands of the wilderness is spoken of in a tone of graphic enthusiasm, which is of itself amply sufficient to assure us that the presence of water of a good quality, and in great abundance, could not possibly fail to cause any spot, however uninviting in other respects, to be very much frequented by travellers. Once known as a halting-place, it would almost certainly become permanently

the abiding place of some of its numerous visitants; and those who consider what London was long since our history became settled and authentic, will easily comprehend how the few huts or tents might, in the lapse of ages, be replaced by a city of palaces.

The Arabs have a tradition that Palmyra occupied a space of about ten miles; and as the noble palms and fig-trees which formerly belted it round fell by time or the hand of man, it is quite possible that the whirlwinds, so common in that part of the world, drove in, from time to time, such mountainous masses of sand as entirely to bury much of what was formerly a part of the city.

The carved work found in various portions of the ruins of this once splendid city is described to be of a perfection to which modern art can offer no parallel. This is particularly the case in the ruins of the Temple of the Sun. On the west side of this magnificent ruin there is an arch of the most masterly finish; and on it are carved some vines, the grapes on which might, even at a very short distance, be taken for the work of nature.

The ruins of ancient Thebes are so vast in extent as to almost stagger the belief even of the traveller who gazes upon them. Of its extent, some idea may be formed from the simple fact, that one of its temples is nearly three leagues distant from another! And not merely as to the extent covered by buildings, but also as to the size of the buildings themselves, does Thebes well merit the epithet “gigantic.” For instance, there is one temple thus described by the celebrated French traveller and writer, Denon:—“Of the hundred columns of the portico alone, the smallest are seven and a half feet in diameter, and the largest twelve feet! The space occupied by the circumvallations of the temple, includes lakes and mountains! To be able to form any adequate idea of such magnificence, the reader ought to fancy what is before him to be a dream, as he who views the objects themselves rubs his eyes to ascertain that he is awake. The avenue leading from Karnac to Luxor, a space nearly half a league in extent, contains a constant succession of sphinxes and other chimerical figures, to the right and left; together with fragments of stone walls and statues.”

In the entrance to the temple,—now used as the entrance to the village of Luxor, which occupies the site of the temple,—there are two statues buried up to the arms, and immediately in front of these are two obelisks, composed of a fine rose-coloured granite, and covered with numerous hieroglyphics, cut in a bold style, and with a fine finish, which the hardness of the material would almost seem to render impossible. The obelisks are now about seventy feet high above ground; and competent judges have conjectured that there are nearly thirty feet of each of them buried in the earth.

A people who could uprear such edifices as those of Thebes, must have possessed not only very great skill, but also very superior tools and machines.

THUNDER AND LIGHTNING.

THUNDER and Lightning have, in all times and in all countries, excited the admiration of mankind; and in not a few, a vague and ignorant admiration of them has been accompanied by an equally ignorant and excessive terror. The red-skinned savages of North America, when they saw the forked lightnings darting along the ground, and scathing the very grass; or leaping, now to this, now to that quarter

of the heavens, and at length rending some gnarled and gigantic monarch of the forest, were wont to cower down as they listened to the pealing thunder, and imagined that they heard the chidings of the Great Spirit.

Not only among savages has this exceeding dread of these grand natural phenomena existed: civilized people of the present day have many individuals among them to whom a thunder storm is a source of the greatest terror; and even among the stern Romans we find that some of the worst and fiercest emperors,—even those who had had presumption enough to cause themselves to be deified,—were driven to the last extremity of terror at hearing thunder, and exclaimed that “Jupiter was thundering in the heavens!” Even Nero, the fierce and sanguinary Nero, stood so much in awe of these phenomena, that he was fain to hide himself in a subterranean apartment on the occurrence of an unusually violent storm.

It is quite unquestionable that thunder and lightning sometimes do much injury, destroying not only property but even life itself; but we have only to compare the number of human beings in existence with the number killed even in the stormiest country in the tropics, and we shall find that the injury is small indeed when compared to the vast good done by storms in purifying the atmosphere, and in ridding us of myriads of insects, which, but for storms, would become destructive equally of animal and of vegetable life.

Knowing the very great importance of storms, in preserving the atmosphere in a fit state for sustaining animal and vegetable life, it is our duty not to view them aghast, and with a superstitious and ungrateful aversion, but to inquire into their nature, as we would into the nature of aught else which God has ordained for our preservation or delight.

It was long *supposed* that lightning and electricity were analogous, and many ingenious endeavours were made to *show* their analogy; but Dr. Franklin had the glory of being the first to do so. Having made a kite fit to attract the electric matter, he watched for the appearance of a thunder cloud. On seeing one approach, he raised his kite, and, with the electric matter which he thus literally drew down from the clouds, he charged phials, set light to spirits of wine, and performed all the other experiments precisely as if using the electrical machine. The experiment was as dangerous as it was bold and useful to science; in proof of which position we need only remark, that an unfortunate foreign gentleman, endeavouring to repeat Franklin's bold experiment, was struck dead upon the spot.

Distinctly to understand the analogy between lightning and thunder, and electricity, we need only remark their appearance, and some of their results. The stream of light which leaps from the machine to the hand is the miniature of the tremendous flash, which darts with terrible impetuosity from the heaven to the earth, and the small tiny crackling that attends the appearance of the former is the little mimic of the loud pealing of the thunder that follows the appearance of the latter.

Though it is highly blameworthy to feel undue alarm at thunder-storms, it is not a whit less so to neglect the proper and needful precautions; for, following up the analogy we have heretofore pointed out—though we know that the electrical machine and the galvanic battery, properly used, are not merely harmless but also of great benefit,—we are not on that account to be heedless of the fact, that it is quite possible to make their shock so powerful as instantly to deprive the strongest man of sense and life. While, then, we look out upon the storm in thankfulness for the good effects it is producing upon the atmosphere, and, consequently,

preparing for us, we must not forget to guard against drawing down its resistless power upon our own persons. Metallic substances, especially those which are bright or sharp pointed, should be laid aside during the continuance of every violent thunder-storm; the neighbourhood of trees and the angles of walls should be avoided, as also should passages having a door or a window at each end.

The greatest possible precaution cannot in all cases guard against accidents by lightning; and when such accidents do happen, the presence of a person who has much presence of mind, and even a little knowledge, may be of vast importance in preserving human life.

Every one of our readers must have met with cases in which persons struck by lightning have been found to be dead, and yet without a single trace upon their persons of the way in which they have been killed. It is our opinion, that all persons who have thus died from the effects of the thunder-storm, and yet without any mark of the lightning's power, have died simply from the want of the need of some person possessing presence of mind, and knowledge enough to apply prompt measures of relief. At first sight, this opinion may seem visionary; but a few words of explanation will, we trust, put it in quite another light.

That great natural philosopher, the late Earl of Stanhope, has shown that the damage done by lightning is not always inflicted by the direct stroke, but is sometimes done by what he denominates the ‘return stroke.’ And, therefore, although it would be as hopeless a task to restore life to the body of a human being torn, bruised, and lacerated, as bodies sometimes are by the actual stroke of the lightning, as to give life, verdure, and majestic stature to the oak, riven from the uppermost branch to the very root, by the same irresistible power, persons apparently killed by lightning, and yet presenting no outward marks of injury, should never be abandoned to their fate until every devisable and practicable means be used, though in vain, for their recovery. Among the efficient means we have seen recommended, are friction of the body and limbs, at as warm a temperature as can possibly be commanded, inflation of the lungs, and application of hot flannel to the chest and bowels, and of hot bricks to the soles of the feet and the palms of the hands. Nor should the failure of these means, used for a considerable time, cause the benevolent operators to despair; for there have been cases in which drowning and strangulation have been deprived of their victims, even when more than an hour has been expended upon seemingly vain endeavours at resuscitation.

We are not aware that any one has ever proposed the electrical machine or the galvanic battery as a curative means in the case of people struck by lightning. We are strongly of opinion, however, that where such means are procurable, they should certainly be used; for lightning itself has cured what lightning itself had formerly inflicted!

A very few years ago a singular instance of this occurred within two or three hundred yards of our office. One of the performers at the Coburg, now called the Victoria, Theatre, had some time earlier been deprived of the sight of one of his eyes by a flash of lightning. At the time we speak of, this performer, whose name, if we recollect, was Yardley, was engaged at the above-mentioned theatre. It chanced that just as he had crossed Waterloo Bridge, on his way to fulfil his evening's engagement, a violent storm came on. With the experience he had had of the terrific power of lightning, he naturally enough quickened his pace in order to gain a place of shelter, but before he could do so a flash of lightning struck him to the earth. Some persons who

were passing by raised him, and carried him to a public house, called the Feathers, in the Waterloo Road, and the proprietor of the house, and others, instantly paid him the most humane attention. Those efforts were at length rewarded with success, and on his regaining his senses he found that the sight of his eye, taken from him by a former stroke of

lightning, had been completely restored to him by this new one.

Such a circumstance, we think, ought to lead the profession to, at the least, try if electricity may not be converted into a very powerful and speedy means of resuscitating the seemingly dead.

SWEDEN AND NORWAY.

SWEDEN AND NORWAY,—or, as the united kingdoms are sometimes styled, *Scandinavia*,*—form a peninsula, which is connected with the continent of Europe by Lapland, stretch beyond the Arctic circle from 55° 22' to 70° 11' 30" north latitude, and extend over a space of 291,224 square miles. To give a clear and concise account of each, it will be necessary for us to detail them under respective heads.

Sweden comprises about 168,802 square miles, and 2,860,000 inhabitants, averaging not quite seventeen persons to each square mile. The physical appearance of the kingdom is highly diversified, presenting a succession of lakes, rivers, mountains, forests, and vales, in greater variety than almost any other territory of the like extent. In the number of its lakes Sweden is unrivalled; that called Werner, lying between Skaraberg and Carlstadt, is the largest. "The shores of the lakes," says Derwent Conway, in his *Solitary Walks* through many Lands, "are not particularly interesting; nor was there any thing to see but a vast expanse of water, enlivened by so few sails, that a feeling of sadness rather than any other emotion, was produced, in viewing so vast an area of water contributing so little to the utility of life." The rivers of Sweden are also numerous. Where the Gotha is rendered innavigable by the intervention of the cataracts of Trolhetta, a canal has been cut through a solid rock of granite, two miles in length, and 150 feet in height.

This country is celebrated for its iron mines, and the manufacture of that metal provides its chief source of commerce; ship-building is also a lucrative employment, from the superabundance of excellent timber it contains.

The national character of the Swedes is highly respectable and interesting: on this point Mr. Coxe remarks, in his *Travels*,—"Upon entering a cottage, I usually found all the family employed in carding flax, spinning thread, and in weaving coarse linen, and sometimes cloth. The peasants are excellent contrivers, and apply the coarsest materials to some useful purpose. They twist ropes from swines' bristles, horses' manes, and bark of trees, and use eel-skins for bridles. Twice in a year they bake their bread in large round cakes, which are strung upon files of sticks, and suspended close to the ceilings of the cottage. They are so hard as to be occasionally broken with a hatchet, but are not unpleasant." An exception to the generally estimable character of the Swedes (described by a writer in the *Edinburgh Encyclopædia* as a "trifling" one) is the immoderate use of ardent spirits.

The original inhabitants of Sweden were a colony of Fins from the banks of the Volga, and the vicinity of Mount Caucasus, whose numbers were augmented by the Teutones, a people of Germany. The country was not converted to Christianity till the end of the eleventh century, which was effected by some English missionaries. Sweden existed under various forms of government up to the year 1392,

when Margaret, queen of Denmark, surnamed the Semiramis of the North, conquered it by policy and force of arms. In the following century appeared Gustavus Vasa, who became the deliverer of his country from the Danish yoke, and afterwards its king. He introduced the Reformation into Sweden, and, by his superior intellect and talents, acquired sufficient influence to get the crown declared hereditary in his family, who continued till lately to enjoy it. A few years prior to the death of Gustavus, which happened in 1560, he endeavoured to bring about a marriage between his son and successor Eric, and Elizabeth, queen of England. His offer, it is well known, was rejected.

The most distinguished descendant of Vasa was Gustavus Adolphus, whose warlike achievements, and unflinching defence of the Lutherans against the emperor of Germany, obtained for him the title of "The Great." He fell at Lutzen at the age of thirty-seven, "carrying to the tomb," says Voltaire, "the name of the Great, the regrets of the North, and the esteem of his enemies." He was succeeded by his daughter Christiana, who, becoming a Catholic, relinquished the crown, and retired to a life of privacy and devotion at Rome. Her successor was the celebrated and eccentric Charles XII. The chief events in the history of this "illustrious madman," as he has been not inaptly styled, are his victories over the Danes, Poles, and Russians; his ultimate defeat at Pultowa; his confinement in Turkey, and his romantic escape. He was killed at the siege of Frederickshal.

Under Gustavus III. who ascended the throne of Sweden in 1771, the population increased, the national character was improved, and arts, sciences, and commerce flourished with unusual vigour. The singular nick-names of *Hats* and *Bonnets*, were, during this reign, bestowed upon two contending parties in the state, the origin of which, like those of Whig and Tory in England, is very doubtful. When the French revolution broke out, Gustavus was one of the first who took alarm, and in 1791, went to Spa for the purpose of heading an army for the deliverance of Louis XVI. In 1792 he was, however, deliberately shot by an officer named Anckarstroem, while quitting a masquerade.

In 1808, the Russians invaded the territories of Gustavus IV. and the latter lost Finland, which has since continued severed from Sweden. And shortly afterwards, the duke of Sudermania succeeded in dethroning Gustavus, assuming the sovereignty as Charles XIII. Under his reign Norway was added to the crown of Sweden; Russia retaining Finland; while to Prussia were ceded Pomerania and the isle of Rugen, which arrangements were confirmed at the Congress of Vienna.

Meanwhile, in 1810, Bernadotte, one of Napoleon's most eminent generals, got himself declared the crown prince of Sweden, and Charles dying in 1818, he quietly ascended the throne under the title of Charles XIV., and has since proved himself well worthy of the dignity, having patronised and promoted every species of internal improvement, in all the departments of state government; and under his

* *Anglicæ*, Land of Caves.

influence Sweden is rapidly rising into power and real prosperity.

Norway is in extent between 150 and 240 miles in breadth, but beyond the sixty-seventh of north latitude does not exceed sixty, or, in some places, even thirty miles. It is bounded on the south by the Scagerrac Sea, on the north and west by the Northern Ocean, and on the east by Russian Lapland and Sweden.

Of the mountains of Norway, the most elevated is the Donrefieldt, nearly in the centre of the kingdom, being one of the immense chains which separate Norway from Sweden; the waters from which give rise to a multitude of rivers and lakes.

Along the western coast of Norway are many dangerous currents, the most noted of which is the Maelstrom, which runs among several islands with extraordinary rapidity during six hours from north to south; and during other six hours from south to north, always against tide; but at high and low water is stationary and navigable. During the periods of its agitation it is necessary for vessels to keep at a distance of several miles, lest they should be drawn into its currents; and frequently whales that approach too near are overwhelmed and destroyed.

The climate of Norway is extremely variable. At Christiania in summer the weather may be oppressively hot one day, and inconveniently cold the next; sometimes these transitions take place in a single hour. At Bergen the longest day is nineteen hours, while in winter the sun rises at nine o'clock, and sets about three; and near the extremity of Nordland and in Finmark it does not appear for several weeks together in the winter season; but the *aurora borealis*, which is remarkable for its brilliancy and beauty in these regions, and the whiteness of the snow, contribute in a great measure to dissipate the darkness.

The inhabitants of Norway are tall and muscular, though rather slender, their countenances flat, and complexion fair, their eyes full of spirit, and their whole physiognomy expressive of energy. It is still so much the practice in this country for every family to fabricate a great part of the articles they require for domestic use, that manufactures, and even the ordinary trades, have made but little progress. In 1793, there resided at Christiania 10,000 persons; yet there were only ten bakers, twenty-nine shoemakers, twenty-two tailors, and seven hatters. And in 1801, no more than

twenty-four master artisans found employment in that extensive capital. The peasantry, in fact, provide themselves with every necessary, and some of them display a truly wonderful ingenuity in carving vessels and other articles of household furniture with their knives. They ornament knife-handles with differently coloured woods, beautifully inlaid; and manufacture, with the utmost neatness, elegant utensils of all sizes, from a cabinet to a snuff-box, with no other instrument than their knives.

But to the feelings of an Englishman, the most interesting trait in the character of the people of Norway is their extreme attachment to our own country. From "Travels in Norway and Sweden," by Dr. Clarke, we learn that, "'The welfare of Great Britain' was a toast which resounded in every company, and was never given but with reiterated cheers, and the most heartfelt transports. Every Englishman was considered by the Norwegians as a brother; they partook even of our prejudices, and participated in our triumphs. Whenever the Gazettes contained intelligence of a victory gained by the English, the glad tidings were hailed and echoed from one end of the country to the other; but especially at Drontheim. They sang 'Rule Britannia' in every company. Their houses were furnished with English engravings; English newspapers were lying on their tables. The Norwegians would have fought for England as for their native land; and there was nothing which an Englishman, as a sincere lover of his country, might more earnestly have wished for, than to see Norway allied to Britain."

Some of the historical records of Norway state, that its people were originally derived from a colony of the Basternd, a numerous and powerful Gothic tribe; while others trace their origin to the Germans. The kingdom was divided into a number of petty principalities, united, A.D. 875, by Harold Harfager, into one monarchy. The numerous descendants of these princes soon dismembered the state by their conflicting claims, and in 1028 the whole country was subjected to Denmark by Canute the Great. The authority of the Danish princes was however frequently disputed; and it was not till the year 1380, when Hager, king of Norway, married Margaret, princess of Denmark, that the two crowns were joined. The countries, however, remained so far separate, as to have two codes of law; and were not formally united as one kingdom till the year 1537. Norway was ceded to Sweden in 1814.

No. XIII.—SELF-INSTRUCTOR IN BIOGRAPHY.]

ALEXANDER CRUDEN, SURNAMED THE CORRECTOR.

LEARNING, industry, and eccentricity, combined with a very obvious attachment to religion, and a most unwearied though odd desire to be useful to the best interests of society, render this name one of the most interesting in the whole range of modern English biography. His life, too, though in but too many respects a life both of suffering and many cares, was in other respects extremely fortunate. Though he originally had to struggle against extreme poverty and the uttermost obscurity, he contrived, by the union of a rare industry and a scarcely less rare frugality, to amass and bequeath a really considerable sum of money; while as to reputation, which to a truly zealous and high-minded author is of scarcely less consequence than pecuniary gain, he has obtained by his great and laborious achievement, entitled "The Concordance," a reputation which many a more temporarily triumphant and lauded author might envy.

But a brief sketch of his life will tell far more clearly than any mere commentaries of ours could, how much industry, frugality, and integrity, can do to neutralize misfortunes of even the most serious and lamentable nature.

Alexander Cruden was the son of a merchant of Aberdeen, and the earlier years of his life were spent in the comfort which results from a tolerable fortune. One of the advantages Alexander thus obtained from the comparative affluence of his parents, was that of an excellent scholastic and collegiate education. Even in his early boyhood, Alexander was remarkable for a staid demeanour, and for a great attention to his religious duties; and this circumstance, added to the ardour and success with which he pursued his classical studies, determined his friends to destine him for the office of a minister of the kirk.

Few young men have ever shown a greater fitness—a

more decided desire—for the ministerial vocation than our subject did; and had all the promise of his youth been fulfilled, there is no reason to doubt that he would have been as distinguished as a preacher as he now is as the author of "The Concordance to the Old and New Testament." But unhappily he had scarcely concluded his brilliant studentship in Marischal College, when his intellects became very obviously affected. He was not precisely insane, but rather what we should term eccentric. A variety of oddities of word and deed attracted attention towards him; and though these oddities were perfectly harmless, it was thought that they ought to warn his friends not to place him in so delicate and conspicuous, as well as important a position as that of the ministry.

His friends attributed his demeanour to his having been at a former period bitten by a mad dog; but all our acquaintance with what really takes place in consequence of an unfortunate event of that nature, warrants us in affirming that a mental disorder such as poor Cruden's could not be owing to any such cause. Hydrophobia is a spasmodic bodily illness, and delirium is only the subsequent result of the fever produced by the bodily suffering; but Cruden's mental disorder was a disorder *per se*, and not a disorder resulting from a symptomatic of any bodily disease; and it is much more probable that the ever-strained state of the brain, produced by his ardent and continuous mental labour, caused his flightiness, (for as yet he was not in a state to warrant any stronger word,) than that he should be the single exception to all other cases of persons bitten by mad dogs, and suffer, as a consequence, from a chronic disease instead of an acute and speedily fatal one. The first occasion upon which his mental affliction took a really alarming turn was that of his paying his addresses to a young lady of some rank and fortune in the neighbourhood of Aberdeen. It was in vain that the young lady most promptly and plainly forbade him to think of obtaining her hand. He was not to be thus easily deprived of hope, and his conduct at length became so violent and determined, that, at the entreaty of the lady's friends, the magistrates of Aberdeen committed him to gaol.

Sensible of the disgrace of this occurrence, the unfortunate man left Aberdeen as soon as he could obtain his liberation, made his way to London, and fairly threw himself on the world as a tutor and literary man. To these avocations he for a time added that of a corrector of the press; and in this latter capacity he for many years did good service to the publishers and to scholars; his corrections of editions of the classics having saved many a blundering reading from being adopted by some, and hotly and interminably controverted by others.

Of his numerous pamphlets, abounding in strange contrasts of sense and extravagance, and generally designated by the strangest imaginable titles, we have no room to make mention. Of that work of prodigious labour and perseverance, "The Concordance," an author, well able to sit in judgment upon it, says, "If any one remember that he hath at any time heard or read this sentence in Scripture—'He will cast all our sins into the depths of the sea,' and desireth to find it for his future comfort, let him take 'The Concordance,' and searching for the word 'sea,' or 'sins,' or 'depth,' he will meet with what he wants at Micah vii. xix." A prodigious labour to make such a work as this! When it was made, poor Cruden dedicated it to Queen Caroline, and no doubt would have been handsomely rewarded by that princess, but her Majesty died just after the copy was presented. This disappointment added to Cruden's mental alienation; he was for some time confined by his

friends; and after he obtained his liberty, went quietly to work at his old business of correcting. From time to time he showed eccentricity, but nothing of consequence. Once, indeed, he paid his addresses with much warmth to a lady, who merely smiled at his delusion; he wrote some strange pamphlets; and signalled his loyalty by wiping off the walls of London all eulogistic mention of the demagogue Wilks. On the whole, however, his future course was both useful and respectable. He was unwearied in his endeavours to promote religion and morality among the lower orders, at that time dreadfully depraved. After a life of exceeding labour and exceeding frugality, he died in 1770, leaving considerable property in various bequests, by one of which he founded a scholarship in Marischal College, Aberdeen, thus, at his death, testifying the sincerity of the zeal he had during his life displayed for learning.

THE WHITE ANT.

PROBABLY in the whole range of entomology there is not a more remarkable subject than the *termes*, or white ant, of which we are about to present some brief account to our readers. There are four species of this very remarkable and also very mischievous insect; viz. the *termes bellicosus*, or fighting ant; the biting *termes*, the fatal *termes*, and the destroying *termes*.

The fighting *termes* is a more wonderful creature than even the bee. Not only does the former display the same marvellous sagacity and forethought, and the same human-like wisdom, in the division of labour; but, in the results of that labour, it evinces a power which, taking the relative size of the ant and of man into consideration, and noting also the vast assistance man's labour receives from an infinite variety of tools, actually surpasses the creative power of man, even as manifested in those stupendous structures, the pyramids of Egypt. Strange and incredible as this fact may seem, we have the authority of a very eminent writer on Natural Philosophy* for asserting and maintaining it.

The ant-hills of Senegal, for instance, are from ten to twelve feet high; while the wonderful little builders of it are not a quarter of an inch in height! A single glance at the respective differences between man and the Egyptian pyramids, and the Senegal ant-hills and their insect architects, will at once show the truth of our assertion.

Seen from a distance, a collection of the larger ant-hills may be very readily mistaken for a village, built and inhabited by human beings. Within, the arrangements are as wonderful as the bulk is without; galleries with arched roofs intersect the building, leading from chamber to chamber; here is a nursery, in which the young are reared; a little further on is a magazine, filled with provisions; here are the royal apartments, and there an arched bridge, constructed with the most admirable adaptation to the purpose of facilitating ascent or descent.

As among the bees, there is a most admirable social economy established among the ants, who are divided into three distinct and strongly marked orders, answering to an aristocracy, an army, and a labouring population.

* Mr. Smetham, who has contributed a very able account of this insect to the Philosophical Transactions.

The last-named division is infinitely more numerous than the other two, and at the same time far smaller and shorter in body. The fighting ant,—the standing army of this insect nation,—are twice as long as the labourers, and ten or twelve times more bulky than they are, and are never seen, however carefully they may be watched, to take any share in the labour of the community.

The third class to be mentioned, and which we have likened to an aristocracy, is that from which alone the king and queen of the community are elected. They are twice the size of even the soldier ants, and are still farther distinguished from the other two classes, by having two pairs of wings, of a brown colour, and perfectly transparent. With the aid of these wings it is that this third order annually escapes, when the others commence the work of destroying all those of them not wanted for royalty. The few of the aristocracy which the instinct of the working and labouring ants induces them to preserve from the general havoc, are instantly provided with superior apartments, and guarded and fed with the utmost possible assiduity by their voluntary subjects.

The distinguished writer to whom we have already alluded, is of opinion, that in order to provide food fit for the young ants when first hatched, the labourers construct gardens, in which they grow a very minute mushroom or fungus; and in this opinion he is supported by a distinguished German writer, named Koenig.

In their other actions they are not a whit less remarkable than they are in their architecture. If a smart blow be struck upon one of—what we may, without any exaggeration, term—the kingdoms of the ants, a sentinel will make his appearance, and at a loud hissing noise made by him, a numerous host will be seen to rush out in great haste, but in the most perfect order. If a breach has been made, and no intruders be in sight, only a few of the soldier ants remain. These seem to give orders to a party of labourers, which instantly commence the necessary repairs. If the intruder be within reach, a body of fighting ants will come forth, to give him battle, and to protect the party engaged in repairing the mischief he has done; and so stoutly do these insect warriors comport themselves, that they actually fetch blood even through the stoutest stockings of a European, and so severely hurt the naked feet of the black people, as to compel them to retreat at full speed.

As potent as the termites are in building up their habitations, their ability of construction is fully equalled by their power of annihilation; and there are few Europeans who have been long resident in India, who cannot bear testimony to the facile and perfect destruction of valuable property by these seemingly insignificant little insects. Wood work, books, and linen, are sure to be devoured, if not carefully protected from the termites, which go in such myriads to their destroying task, that a single night suffices them to make havoc which requires the expenditure of many pounds sterling to remedy.

EXPLANATION OF THE PRINCIPAL TERMS MADE USE OF IN ASTRONOMY.

(Continued from page 312.)

Magnitudes, the stars are divided into six sizes or classes, of which the brightest are called stars of the first magnitude; the next in brightness to these stars of the second, and so on.

Mars, a primary planet, belonging to the solar system, the magnitude of which is about four times less than that of the earth: it is the fourth in order from the sun.

Mean motion of a planet, is that which would occur if it is moved in a perfect circle, and passed through equal portions of it every day.

Medium Celi, the mid-heaven, that part of the ecliptic, the degree of which is upon the meridian at any time of the day or night.

Mercury, a primary planet, the first in order from the sun, and whose magnitude is about fifteen times smaller than that of the earth.

Meridian, a great circle of the sphere, which passes through the zenith and the poles, being perpendicular to the horizon; so called because when the sun is upon this circle it is always mid-day or noon.

Metonic year, the same as the cycle of the moon; a period invented by Meton, a Greek philosopher, who lived in the 86th Olympiad, or about 430 years before Christ.

Micrometer, an astronomical instrument, by which the apparent magnitudes of objects, viewed through telescopes or microscopes, are measured with the greatest exactness.

Microscope, an optical instrument, by the aid of which very minute objects are represented much larger, and viewed more distinctly at small distances.

Minute, the sixtieth part of a degree in motion, and of an hour in time.

Monocoras, a southern constellation, consisting of thirty-two stars.

Mons-Manulus, a constellation in the northern hemisphere, containing eleven stars.

Month (lunar), is the space of time that the moon takes in passing from one point of her orbit to the same point again; consisting of about twenty-seven days, seven hours, forty-three minutes, and eighteen seconds.

Month (synodical), the time that elapses between one conjunction of the sun and moon, and another, being a period of about twenty-nine days and a half.

Month (solar), the time the sun takes to pass through one of the signs of the zodiac, which, on the average, is about thirty days and a half.

Moon, a secondary planet or satellite, attending the earth, which she regards as the centre of her motion.

Musca, the fly, a northern constellation, consisting of six stars.

Nadir, the point in the heavens which is diametrically opposite to the zenith, or immediately under our feet.

Nebula, clusters of small stars, which have been discovered by a telescope in different parts of the heavens; so called from their nebulous or cloudy appearance.

Noah's Dove, a southern constellation, composed of ten stars.

Nocturnal Arc, is that space of the heavens which the sun apparently describes during the interval that occurs from the time of his setting to that of his rising.

Nodes, the two points where the plane of the ecliptic is intersected by the orbit of a planet.

Nonagesimal Degree, the ninetyeth degree, or highest point of a planet, at any given time of the day or night.

Northern Signs of the ecliptic, are those six that lie to the north of the equinoctial, comprising Aries, Taurus, Gemini, Cancer, Leo, and Virgo.

Nucleus, a term used by astronomers, by some for the head of a comet, and by others for the central parts of the planets.

Nutation of the earth's axis, a vibratory motion, produced by the attraction of the sun and moon upon the protuberant matter of the equator.

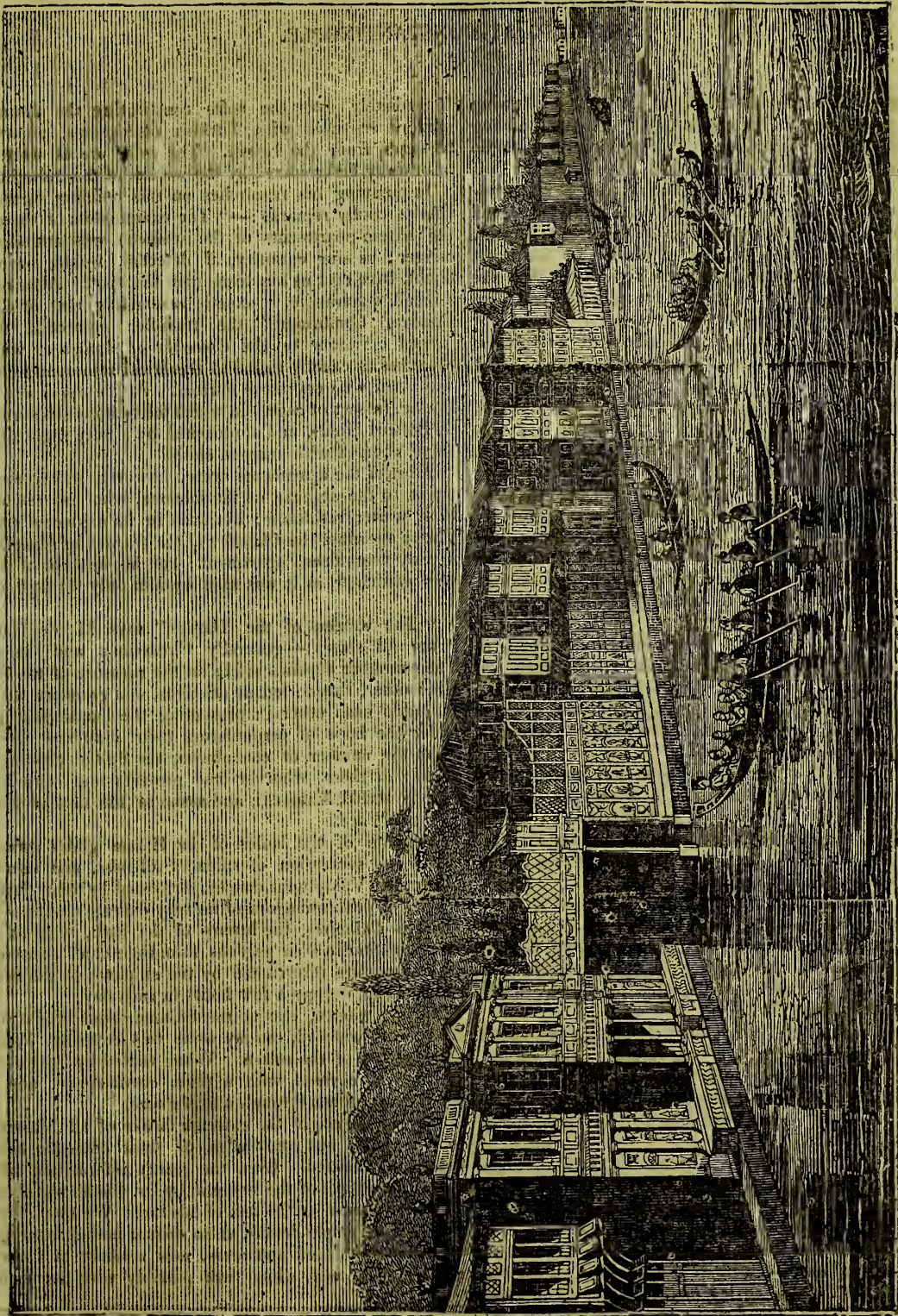
Oblique Ascension is an arc of the equinoctial, contained between the first degree of Aries, and that point of it which rises with the centre of the sun or a star.

Oblique Sphere is that position of the globe in which the horizon is divided by the equator obliquely, or at an angle of less than 90 degrees.

Occultation is when the interposition of the moon, or some other planet, conceals the splendour of a star or planet.

Octant, an aspect of the planets, when they are forty-five degrees distant from each other.

(To be continued.)



VIEW OF THE SERAGLIO AT CONSTANTINOPLE.

SERAGLIO AT CONSTANTINOPLE.

WE quote from our former article on Turkey the following statement concerning the immense and interesting building represented in our Engraving. "The Imperial Seraglio forms an important part of the Turkish government. It is composed of two divisions, the Selamlık, which is appropriated to males belonging to the imperial household; and the Harem, which is the exclusive abode of the females. In the last are secluded a number of females of the rarest beauty and accomplishments, who have been selected by the Sultan or his predecessors, or sent as presents by his female relations or wealthy subjects."

Lady Mary Wortley Montague describes the Seraglio as "a palace of prodigious extent, but very irregular. The gardens take in a large compass of ground, full of high cypress-trees. The buildings are all of white stone, leaded on the top, with gilded turrets and spires, which look very magnificent; and, indeed, I believe there is no christian king's palace half so large. There are six large courts in it, all built round, and set with trees, having galleries of stone; one of these is for the guard, another for the slaves, another for the officers of the kitchen, the fifth for the divan, and the sixth for the apartment destined for audiences. On the ladies' side there are at least as many more: with distinct courts belonging to their eunuchs and attendants, the kitchens," &c.

The walls of this stupendous palace embrace a circuit of about nine miles, including several mosques, spacious gardens, and other buildings. There are several gates, by which the building is entered, and at the principal one the stranger is frequently shocked by the sight of the heads of recently-executed criminals.

It is supposed that one department of the Seraglio contains great treasure; as it has been always the custom for each sultan to leave large sums in the treasury. Whatever, therefore, the sovereign could collect during his life, was shut up in his *khasne*, chamber, with an inscription in letters of gold—"This is the treasure of the Sultan Mahomoud," (or whatever sultan it might have belonged to.)

The mutes of the Seraglio, about forty in number, are the court fools, and were formerly obliged to perform all the capital executions in the empire. The dwarfs are also subjects of mirth at court, and are often used as footstools for the sultan to mount his horse.

The second in command in this large establishment—called the *bostangibaschi*—is the only individual in the palace, except the sultan, allowed to wear a beard. Beside the five or six hundred men employed in guarding the Seraglio, the sultan has a life-guard (*peicks* and *solacks*), who accompany him when he leaves it.

According to the account given by Dr. E. D. Clarke, one of the few individuals fortunate enough to find an opportunity, and bold enough to encounter the immense risk of entering the Seraglio, the *kiosk*, or summer residence, "is situated on the seashore, and commands one of the finest views the eye ever beheld, of Scutari and the Asiatic coast, the mouth of the canal, and a moving picture of ships, gondolas, dolphins, birds, with all the floating pageantry of this vast metropolis, such as no other capital in the world can pretend to exhibit. On the right and left are the apartments of the sultan and his ladies. From the centre of the dome is suspended a large lustre, presented by the English ambassador.

Immediately over the sofas constituting the divan* are mirrors engraved with Turkish inscriptions, poetry, and passages from the Koran. The sofas are of white satin, beautifully embroidered by the women of the Seraglio."

In pursuing his researches on this building further, Dr. Clarke coolly remarks:—"The examination of the *charem* (or harem-apartments of the women) was attended with danger; as our curiosity, if detected, would, beyond all doubt, have cost us our lives upon the spot." After entering a small quadrangle, "exactly resembling that of Queen's College, Cambridge," the traveller proceeded through several corridors to the *Chamber of Audience*, which he describes as exactly suited to theatrical representations. It was lined with enormous mirrors. At the upper end is the throne, (a sort of cage,) in which the Sultana sits surrounded by latticed blinds, and approached by a lofty flight of broad steps, covered with crimson cloth.

Most of the apartments were, however, in derangement, owing to the absence of the inmates, who had removed to their winter residence; but even in its neglected state Dr. Clarke describes the *Chamber of the Garden of Hyacinths* as a truly magnificent apartment; but his account of it is not very particular, as it was seen by him only through a glass door.

"The women of the Harem," says M. de Hammer, "are all slaves;—generally Circassians and Georgians. Their number depends solely on the pleasure of the Sultan. His mother, sisters, female relations, and grandees, all strive to outdo each other in presenting the handsomest slaves, under the hope of perpetuating their influence over him. From the number of concubines, the Sultan chooses seven wives; of these, whoever first presents him with a male heir is styled *Khasseki*, and assumes the rank of Sultana, *par excellence*.

The life of the ladies of the Harem glides away in a wearisome succession of splendid idleness, and enervating pleasures. Voluptuous dances, performed by their slaves,—a species of phantasmagoria of no very delicate nature,—called *Ombres Chinoises*, the luxury of the bath, with an occasional saunter in their gardens, form their chief amusements; while these are interrupted by the etiquette of the Sultan's visits, which occupy a few hours in each day.

All the women, except the Sultana, wear veils: none of them, even when ill, can lay aside this covering, except in the presence of the sultan. When visited by the physician, the bed is covered with a thick counterpane, and their pulse must be felt through a thin gauze.

In consequence of the extreme dislike of all Mussulmans to Christians, our knowledge of their domestic habits is necessarily limited. Even the scanty information afforded us on the subject of the Seraglio by Dr. Clarke was obtained, as we have seen, at the risk of his life. We may, however, expect more ample details, at no distant period, from the pen of an accomplished authoress, now resident at Constantinople.† Her sex, which will possibly save her from the

* The divan is a sort of couch or sofa, surrounding every side of a room, except at the entrance. It is raised about sixteen inches from the floor. When a divan is held, it means nothing more than that the persons comprising it are thus seated.

† Miss Pardoe, authoress of "Traits and Traditions of Portugal," &c.

risks encountered by her predecessor, together with the known liberality of the present Sultan in promoting knowledge, and affording information to all classes, lead us to hope this lady will have a wide field opened before her for collecting a host of new and interesting facts relative to the capital of the Ottoman empire.

EDUCATION AS IT IS AND AS IT SHOULD BE.

If evidence of the fact did not meet our eyes wheresoever we turn, then it would be impossible to believe that in an age so highly civilized, and in almost every other respect so solidly and thoroughly wise as the present, education, the most important of all the duties of civilized man, should retain so many of the faults of both omission and commission of an earlier and more barbarous time. In every thing that has relation to bodily improvement, or bodily comfort, our arts have reached a perfection which warrants us in thinking quite in pity of the comparatively wretched situation of our not very remote ancestors; but while we have, in that direction, far outstripped their feeble and puny flight, we have, as to the mind, retained some of the very worst of their follies with a pertinacity truly marvellous.

Looking on impartially, and casting our glance back to our own schoolboy days, who is there among us who can deny, that both in the matter, and in the manner of our education, there was much that might easily, and with vast advantage to all concerned, have been improved?

The first grand error (an error the more discreditable to us, because the noble-minded Pestalozzi has long since enabled us to avoid it, if we would but attend to that master-teacher's philanthropic instructions) is our basing our system not upon love, but upon fear. To go to school is made, in the great majority of cases, a threat; to learn a task is in an equal number of cases looked at in the light of an infliction; whereas the one ought to be a promise received with gladness, the other a delight anticipated with eagerness. What! we wish the young mind to grow with the growth, and strengthen with the strength of the young body—we seriously, aye, and very ardently, too, desire this, and yet subject the mind to fetters and difficulties, to which, most happily, the body is a perfect stranger? Strange infatuation! We do not threaten the young boy that in the beautiful coolness of the summer evening he shall bound over the greensward, now plucking the wild flowers from his path, and anon listening with upturned eyes and greedy ears to the rich melody of the nightingale. The walk, the ride, the sail—the view from the lofty hill, the stroll through the green lane, or the gaze from the cliffs that overhang the ocean expanse—these are not threatened, these are not forced upon the young body; how then is it that we are so much less cognizant of the nature and of the rights of the young mind? The answer is easily found;—what in our ancestors was ignorance, is in us habit. What is usual we indolently confound with what is right; we find a system established in all its parts, and without thinking it at all necessary to inquire into its adaptation either partly or as a whole, we implicitly adopt it, and rigidly act upon it.

Our ancestors made children learn in tears and with difficulty, not unmingled with loathing; is that any reason why we should do so? Our ancestors, not so many centuries ago, had rushes strewn upon their floors, and had wooden shutters, which either excluded the beauty-creating light, or admitted light, cold, and rain altogether; do we, therefore, turn obstinately away from the luxuries of carpets and plate glass?

Surely not; and as surely it is time that we who have the printing machine, and the marvellous powers of steam at our command, to increase and diversify our physical enjoyments, should learn to be ashamed of allowing the sublimely important duty of education to be imperfectly performed.

Candour calls upon us to admit that in modern education, all the evils of the old system are not perpetuated in reality. Probably England might be searched in vain for a modern Busby or Bowyer, delighting in the shrieks of young children, and thinking no mental exercise well performed save when accompanied by the agony of the body. The brutality of corporal punishment, degrading, to any sufferer, and doubly unjust to those who are inferior in mental aptitude, as in bodily strength, to their fellow-students, is now, we are happy to believe, unknown in private schools; and most assuredly it shall be no fault of ours if it be not, ere long, abolished in public schools also. But, though this tyranny be abolished as to actual usage, it still remains *in terrorem*. The stern, harsh, peremptory tone—the magisterial hauteur, and distance of demeanour—still remain to cause the pupil to look upon the teacher in awe, and not in that glad and confident, though respectful love with which he meets his father. This is a grand and a grievous error. It affects both pupil and teacher; nay, we doubt if the latter be not more extensively wronged by it than the former, for surely to men of cultivated intellects, few things in our toilsome world can be more delightful than the confidence and the love, of those pure young creatures who depend upon them for mental, as upon their parents for bodily support. We shall by and by see that Pestalozzi long ago warned mankind against this error; we shall see that that great and good man long ago pointed out the real and proper relation between teacher and pupil, and showed how the one might teach without irksomeness, and the other learn without suffering or terror, without threat and without infliction. Enough for the present of this one error. A second capital error is our strong and strange propensity to cultivate the memory at the expense of the judgment; to teach the pupil to remember, but not to discern; to make him parrot-like in faithful and mechanical repetition of words, but blind as a mole to things. We are perfectly well aware that there are staunch and strenuous advocates for these antique barbarisms—men who are in all cases the very creatures of precedent and routine, and who are ever ready to repeat with grave and perfectly sincere earnestness, "*Post hoc, ergo, propter hoc*." Such persons we know, too, will triumphantly remind us that, under this system, several of the greatest of the literary immortals of England have been educated; and they will from that fact triumphantly infer that the system under which such men have been educated, can be no other than a good one. We cheerfully admit the fact: we most stoutly and positively deny the influence. If great men have been thus absurdly reared, how much greater men might we not have had if the intellects of those mental magnets had been more rationally and philosophically dealt with in their youth? And among these men of whom England is so justly proud, do we not find Milton and Locke protesting against the system, and, showing, in detail, how the young mind may be at once more fairly and more efficiently dealt with? Assuredly! And still more in detail, with still more of adaptation to the circumstances of the majority of schools, has Pestalozzi taught us that precious lesson, as we shall now proceed to show.

Independent of the indubitable tendency of our system of fear and emulation to have the doubly ill effect of utterly crushing all timid and weak spirits, and of implanting in the breasts of but too large a majority of them an envious

ungenerous, and almost malignant feeling; in addition to this sufficiently terrible tendency of such a system, it has the still further bad quality of being absolutely inefficient even for the purpose for which it is avowedly designed. Perception of things, as well as retention of words, was intended by the Creator to exercise the human mind; and the laws of the Creator, those laws which he has fixed as second causes for the preservation and governance of his beautiful creation, are not to be contravened with impunity.

In a foregoing part of this article we have not hesitated to admit, that both under our existing system of education, and under its still more barbarous and unwise predecessor, many very great men have been reared; but we again beg to impress upon our readers that such men have become the ornaments and the benefactors of both their contemporaries and their posterity, not because of such systems, but in despite of them. Even those gigantic minds which, soaring above all petty difficulties, and laughing to scorn all petty bonds and restraints, have made their way to the empyrean of poesy or of science, of philosophy or statesmanship—even those giant minds would have winged a loftier and a bolder flight, had their earliest training been a good one.

We confess that for the exertions of Pestalozzi we entertain an enthusiastic admiration. Not only was he utterly averse to the mingled tyranny and gratuitous folly of the system of fear and emulation, but he was the strenuous and the untiring advocate of beginning at the right end. This great, good, and wise man would have the sports of the glad child, his walks in the fields, the various articles of furniture

and clothes that surround him, in short, all tangible and visible things, and every occasion of his looking upon nature, to furnish him with his lessons of instruction. And it was not until after the young mind was well stored with this diversified natural philosophy, and well skilled in the observant and distinctive exercise thus afforded, that Pestalozzi would allow mere abstract ideas, and the words which are their symbols, to burthen his pupil's mind.

This method of teaching must become universal in this country, and for this simple reason—it is the only method that is thoroughly in accordance with nature; and we are much too far advanced in real philosophy, the philosophy of shrewd, practical common sense, to continue to follow systems which are opposed to nature. Both tutors and parents are far too anxious to see the real, as well as the facile and pleasurable advance of children in all useful and elegant acquirement, to refuse to remove those obstacles to it which have their origin only in the folly of our system of teaching. Teaching! we can scarcely even call it by that name; it is more deserving to be called telling to learn; and telling to learn, too, only words, to which, ignorant of things, and still more ignorant of abstract ideas, the young creature—though in pain and in tears he may contrive to learn them by heart—most assuredly can attach no vivid and living meaning.

Yes! let us hope that ere long the humane Pestalozzi's maxims will rule in all our schools; let us hope that in all our schools his rational system will really cause the pupils to be taught, and not merely told to learn—made masters of much wisdom, and not merely of many words.

CHINA.

CHINA PROPER is denominated "the centre of the world." It lies in latitude $18^{\circ} 37' - 41^{\circ} 35'$ north; and, including its tributary states and dependencies, consists of about 5,250,000 square miles, with 242,000,000 inhabitants, or a fraction over forty persons to each square mile, being the most densely populated region on the earth. The whole empire is divided into fifteen provinces, besides *Fong-t'hyen*, or Chinese Tartary and Thibet. The form of government is strictly patriarchal; the Great Emperor being considered as the head of an immense family. He is sole master of life and death, arbiter of the laws themselves, and the only source of all power and emolument. In the supreme direction of public affairs he is assisted by a sort of cabinet council, called "the Inner Court," the members of which are the *Ta-hyo-si*, or ministers of state. The supreme tribunals consist of—first, *Li-pu*, board of clerks and dignities; second, *Hu-pu*, board of revenue; third, *Li-pu*, board of forms and ceremonies; fourth, *Hing-pu*, board of penal law; fifth, *Kong-pu*, board of public works; and sixth, *Ping-pu*, military board.

In reference to their own history, the Chinese have advanced the most extravagant claims concerning the antiquity of their nation, which they pretend to trace back to a period far anterior to the Scripture date of the deluge, and even of the creation; but it has been conjectured from the coincidence between several parts of their tenets and the mythology of the ancient Egyptians, that they are descended from a colony of that people. So careful have the Chinese ever been of their historical annals, that they have made an immense collection of records, known as the Twenty-one Historians, one of whom was Confucius, B.C. 550, consisting of 500 volumes, in which it is stated that the first emperor was *Fe-hce*, who commenced the title and authority of a

sovereign B.C. 2953. These works not only enter into a minute and circumstantial account of the actions of the various emperors, but contain marginal notes, reciting the wise sayings of each monarch belonging to the four imperial dynasties that existed before Christ. These enumerate 195 sovereigns.

In the reign of the emperor *Si-hoang-tee*, about 214 years before the Christian era, that stupendous work of masonry, the great wall of China, was completed. It separates the country from Northern Tartary, for protection from the incursions of whose marauding tribes the immense structure was undertaken. It is said that every third man throughout the empire was summoned to assist in the building, and that in those places which were too steep to admit of horses or carriages being used, the workmen stood so close for many miles as to be able to hand the materials from one to another. The work is carried across rivers, valleys, marshes, and even the tops of the highest mountains, without a single interruption in its course, except by a ridge of inaccessible mountains near the city of Suen, to which it is closely united on each side. Its length has been estimated at 1500 miles. The top is paved with flat stones, and so broad that in many places six horsemen can easily ride abreast upon it. It has been farther calculated, that all the dwelling-houses of Great Britain, estimating them to the number of 1,800,000 would not be equivalent to the solid contents of this immense building.

The birth of our Saviour took place during the reign of *Ping-tree*, the twelfth emperor of the *Han*, or fifth dynasty. The most celebrated prince of this line was *Yoo-tee*, (B.C. 140, who was remarkable for his love of ceremony, and also for his superstition, being much addicted to a belief in the *Tao-tse*, or immortals, who pretended to prepare a liquor which rendered man exempt from death. One of the grandees

happened one day to be in this emperor's presence when the mysterious beverage was brought to him, and suddenly seizing the cup, swallowed its contents. The monarch, enraged at such presumption, gave instant orders that he should be put to death. "Your command is of no avail," said the courtier, without emotion. "If this liquor has rendered me immortal, you have no power to deprive me of life; and if it has still rendered me subject to death, you rather owe me a recompense for having exposed the imposture." This answer saved the life of the minister, but did not cure the monarch of his credulity.

The next emperor of any note was *Tay-tsong*, the second prince of the thirteenth imperial dynasty, (A.D. 626.) He was renowned for his great love of learning, and is said to have instituted an academy in his own palace, at which 8000 scholars were instructed in all kinds of literature. So great was his liberality, that when certain Christians entered China, they were not only permitted to preach, but presented with a piece of ground, whereon to build a place of worship. The succeeding reign formed a sad contrast. *Kao-tsong*, son and successor of the former sovereign, having allowed a concubine, named *Voo-shee*, to gain a complete ascendancy over him, she proved a monster of ambition and cruelty, poisoning the empress, and sacrificing many of the royal family; and to raise her youngest and favourite son to the throne, absolutely put his two elder brothers to death.

In the year 1260, the Tartars having gained a series of complete victories over the Chinese, set one of their own nation on the throne, who began the twentieth or Mogul dynasty: this was *Shee-too*, who had sufficient wisdom to conform in every particular to the ancient government and laws of his new empire. He even permitted all persons to remain in the respective state employments they had held previous to his conquest; and to this day, the reign of his family is styled "the wise government." He was the author of the statute which appoints that there should be but one calendar throughout the empire, to be compiled at court, and published every year; and was the first sovereign who removed the royal residence to Peking. The dynasty, of which he was founder, however, ended with *Shun-tee*, A.D. 1333. A Chinese, named *Shu*, having raised a successful insurrection, finally ascended the throne, by the name of *Tay-tsoo*. This sovereign was universally esteemed, being celebrated as one of great wisdom and piety; but his reign was disturbed by several contests with the Northern Tartars.

About the year 1617, the Chinese mandarins had conducted themselves with unjustifiable insolence towards the Tartar merchants residing in *Leao-tong*, and proceeded so far in their aggressions as to put a Tartar king to death, after having treacherously got possession of his person. *Trin-ming*, son of the murdered prince, entered the Chinese territories at the head of a powerful army, to avenge the death of his parent, to whose manes he vowed to sacrifice 200,000 Chinese; and after a warfare of more than two years, succeeded in gaining possession of Peking, and commanded all the inhabitants, under pain of death, to shave their heads after the Tartar fashion; on which occasion it is stated that several thousands of Chinese chose rather to lose their heads than their hair. After twenty years of rebellion and internal bloodshed, China was finally subjugated by the Tartars.

Another able prince appeared on the throne of China about 1640, in the person of *Shee-tsong*, who so far patronised the Jesuit missionaries, that their chief, Adam Schaal, was honoured with the title of *Ma-fa*, or "My father," and the office of president of the tribunal of mathematics, and

intrusted with the reformation of the calendar by Mahomedans for nearly 300 years.

In the reign of *Kang-hee*, the boundaries between Russia and China were amicably defined by the assistance of two missionaries, Gerbillon and Pereira; and in 1707 these learned fathers were employed to make a map and survey of the empire. In 1722, *Kang-hee*, after having established his empire in profound peace, and done more for its improvement than any emperor who had ever filled the throne, died in the sixty-ninth year of his age, and the sixtieth of his reign. Not long after the accession of *Kien-long*, a formidable insurrection of the Mahomedan tribes was raised, which ended in the entire overthrow of the rebels. An order from the emperor commanded the extermination of the whole nation, except those under the age of fifteen; and a tract of country, above 100 leagues square, containing 1000 towns and villages, was converted into an empty desert.

In the year 1788, while the emperor, though at the age of seventy-eight, was engaged in hunting in the deserts of Tartary, a sudden inundation descended from the mountains, flooding the whole adjacent country, and it was with difficulty that *Kien-long* gained a small elevation, where he was obliged to pass the day without food, till a slender bridge was thrown across the hollow, by which he was saved, though many of his attendants were swept away by the torrents.

In 1793 Lord Macartney was sent with a splendid embassy from the king of Great Britain to the emperor of China, with a view to secure more extensive privileges for the merchants of England. The mission was received with every mark of respect by the Chinese government, but completely failed in its object.

In 1796, *Kein-long*, according to a resolution he had long entertained, abdicated in favour of his son, after a reign of sixty years, and died in 1799, at the age of eighty-nine, with the character of an enlightened, humane, pacific, and prudent prince. In 1805, Sir George Staunton, with Mr. Pearson, surgeon to the Chinese factory, succeeded in introducing vaccination; and, in this instance, so far overcame Chinese prejudice against European customs, that a general inoculation for the cow-pox took place in Canton, and a large subscription was raised by the natives for establishing an institution in that city, from which the necessary matter might be obtained, and disseminated into every province in the empire.

In the month of October, 1806, a serious misunderstanding was occasioned between the British factory at Canton, and the Chinese government; which originated in a scuffle with a native and a British seaman, on board of one of our ships, in which the former received a blow from a hand-spike, which occasioned his death. The offender not having been given up, all British subjects were ordered to quit Canton without delay; but Admiral Drury, and other English commanders, at length succeeded in amicably adjusting this matter, by expostulation, and large presents to the relations of the deceased. During this dispute, however, a Portuguese priest named Rodrigo, who acted as interpreter to the admiral, succeeded in making his way, under the disguise of a Tartar, to Peking, and, after residing a considerable time in that capital without being discovered, returned in safety to Macao. This clandestine visit afterwards becoming known at Canton, the authorities expressed the strongest indignation, and Father Rodrigo, having been treacherously enticed beyond the Portuguese boundaries, was carried prisoner to Canton, where the inhabitants evinced an unequivocal determination to make him atone for his deception and insult with his life. The servants of the

Portuguese and British governments, however, having assumed a warlike attitude, the restoration of the priest being formally demanded, he was eventually delivered up to his friends, after a miraculous escape from the bow-string.

The frequent disputes which arose between the English merchants and the Chinese, rendered it necessary that our own government should take some steps to conciliate and settle the differences of both parties; and on July 16, 1834, Lord Napier arrived in the Macao roads, empowered by a royal commission to introduce a new system of intercourse between the subjects of Great Britain and those of the "Celestial Empire." His lordship, impatient at the delay occasioned by the frivolous and unnecessary ceremonies prescribed to him for his entry into Canton, by *Loo*, its governor, entered the city without ceremony of any sort; the consequence was, a series of petty disputes, which ended in the precise result to prevent which Lord Napier had taken his voyage;—the trade was stopped.

His lordship threatened to anchor before Canton with ships of war; but deeming it necessary to moderate the peremptory tone he at first assumed, became involved in another series of long discussions with the subordinate authorities of Canton; and he was at length compelled to re-embark for Macao. This was looked upon by the Chinese as a sort of triumph, which they exulted in by every species of annoyance it was possible to devise. The vessel in which Lord Napier journeyed was surrounded by Chinese junks, with mandarins and musicians on board, who kept up a perpetual din, with gross and other discordant instruments. These circumstances did not fail to augment the bad state of health his lordship had experienced during his visit, and on the 27th of September he fell a victim to an alarming fever. On the 21st of October Lord Napier breathed his last at Macao. Having expelled the *Barbarian Eye* (which figurative term they applied to his lordship to describe his office), the Chinese, with great affectation of magnanimity, re-opened the trade, which at the present time is flourishing prosperously enough.

The chief attributes of the general character of the Chinese are cheerfulness and content; they seldom complain, and rarely quarrel; but an affectation of gravity, an excess of politeness, and apparent openness, are combined with pride, meanness, frivolity, and duplicity. Drunkenness is almost unknown, and filial piety is the basis of all their laws, and the ostensible principle of their constitution. The state of the female sex is extremely degraded in China. Among the lower orders, the hardest of work is performed by them, and the wife drags the plough, while the husband sows the seed. It would be an unpardonable offence for one of the higher class of Chinese women to appear in public, unless hid behind the curtains of a chair, or tilted wheelbarrow. Matrimony is made a completely pecuniary arrangement. The bridegroom is always the buyer who has bid the highest. Prostrations of the man and bride before the parents of each, eating together, and the exchange of cups, constitute the whole marriage ceremony. A month afterwards the bride's parents come to see her; but women of good character go out little, being entirely devoted to nursing and house keeping. The most remarkable custom respecting the women of China, is the unnatural one of compressing the feet into a compass sufficiently small to be forced into a shoe of four inches in length, and one and a half in breadth.

The Chinese rise at a very early hour, and their streets are completely crowded at day-break. They retire to rest at sunset.

The people of this nation are passionately fond of gaming,

and are seldom without a pack of cards or a pair of dice in their pockets. On the fifteenth day of the first month, the feast of lanterns (*sai-teng*) commences. It is a season of great festivity, which lasts for several days, when nothing but shows, fire-works, and other entertainments are thought of; and every one strives to outdo his neighbour in the number and brilliancy of the paper luminaries that adorn his house.

The staple commodity of the Chinese trade is tea, and the amount of exports in this article alone, from its different trading out-ports, is enormous.* Sugar, cinnamon, porcelain, alum, borax, musk, gold, quicksilver, and nankeens of various sorts, they also supply in large quantities to foreign nations.

The elements of the Chinese language are of a hieroglyphic or symbolic nature, and consist of 214 "mother characters," or letters, or written signs combined in a variety of forms, which offer some imitation of natural objects. All words are of one syllable; and although these are occasionally joined so as to make a compound, yet each syllable so united forms a word complete in itself.

In painting, the people of China display the most extraordinary powers of imitating, in most minute detail, the component parts of the objects illustrated: hence their pictures are devoid of general effect, not only from this cause, but on account of their ignorance of perspective. They will draw the exact number of petals, thorns, spots, &c. of a flower, and count with the utmost exactness the scales of a fish.

Music was, in the former ages, considered by the Chinese almost as an appendage to the state. No public ceremony was then performed without its aid, and the office of prime musician was one of the most important in the state. Their instruments consist of drums, bells, lyres strung with silk, besides five other kinds. Their vocal music is soft and pleasing, but the sounds are often forced through the nose and throat in a very singular and indescribable manner.

The invention of the art of printing is ascribed to the Chinese at a period of five hundred years before it was known in Europe. It was originally practised by means of wooden blocks, upon which the subject-matter was engraved, and impressions taken therefrom. Movable types were afterwards used. Gunpowder also originated in China; but although their fireworks are very splendid, they have not been improved upon for several hundred years.

VALUE OF STUDIOUS HABITS.

WHEN the wisest of men declared that "all is vanity and vexation of spirit," he referred only to merely worldly pleasures. Ambition, luxury, command, wassail, and the wine cup; all that is merely worldly, or merely sensual, must of necessity become tiresome and wearisome. Men who in their youth have been the most notorious for their irregular habits of evil indulgence, have not seldom in their more mature years become altogether as remarkable for their sobriety of both demeanour and conduct. The "vanity" of ill-pursuits has wearied such men, and has aided in enforcing the principles of sound morality; and no stronger proof can be given of the folly as well as criminality of such pursuits,

* The Parliamentary returns inform us, that, in 1831, 31,648,922 pounds of tea were imported into this country; the stock on hand at the end of 1830, amounted to 30,046,935 pounds, and that which remained at the close of 1831, was 29,997,055 pounds; consequently, during the latter year, no less than 31,698,802 pounds of tea were consumed in Great Britain alone.

than is afforded by the fact, that no one so entirely and heartily censures them, as those who have formerly been unwise and unhappy enough to be their votaries.

How essential it is, that our habits be well formed, we have often taken occasion to remark, and here is a new proof of the fact. For though a very strong mind may by chance extricate itself from the guilt of evil company and evil practices, no mind which has long been accustomed to them, will be able to fall back upon itself for occupation or amusement. The hour at which the evil haunt was wont to be visited, and at which the evil companions were wont to be met with, how is that now to be spent? Of labour, of whatsoever kind, man must at times grow weary; and woe to him who, at such times, has no choice, save between utter idleness and evil association!

A singular instance of the power of habit upon the mind was related in connexion with an unfortunate event which occurred in the metropolis some few years since,—we allude to the falling of the Brunswick Theatre. Among the unfortunate performers who were buried in the ruins was one who, to many other follies by which he had been marked, added that of making a constant practice of going at a certain hour to the public house, there to indulge, as it is called, in filthy stupefaction of tobacco and strong liquors. Will it be believed, that in the total darkness and dismay of his situation, with tons upon tons of ruins above his head, and with but the accident of a projecting beam, which might at any instant give way, to prevent that death to him, which had already befallen so many of his companions, who lay around, though invisible to him,—will it be believed that under such circumstances, and with scarcely the shadow of a chance of escaping from death, either by being crushed or starved, this unfortunate man even now could tell by his feelings that it was the hour at which he used to go to the public house? Incredible as the fact may seem, it is a fact, and we have given it not indeed literally, but substantially, from his own letter published in the "Times" newspaper. Such is the power of habit, of the custom of doing certain things at certain intervals, that his miserable condition, and the but too probable prospect of the horrible death by starvation, could not prevent him from thinking of the miserable sensuality to which he had allowed himself to become wedded; a memorable warning against the first fault, which is the foundation-stone of a bad habit.

Powerful as bad habit is, good habit is still more so. The unfortunate man of whom we have spoken above, was saved from the terrible fate to which many of his unfortunate companions were the victims; and rooted, and seemingly inveterate as had been love of the pot-house, the same letter which we have quoted from, announced his intention not only of abandoning his sensual indulgences, but also to quit the stage itself for some employment presenting less hazard to the morality of the individual, and bestowing greater benefit upon society at large. Nor is he by any means a singular instance of a person learning to look with loathing and contempt upon vices once cherished and followed with the utmost fervour of devotion.

But good habits are as permanent as they are delightful. The common expression, "book-worm," is not half so much a sarcasm as they who use it seem to think it; it is by no means so pitiable a case as the butterfly denizens of the world, who have no business but the busy idleness which they call pleasure, may imagine, to be so absorbed in study as to take little or no heed of the ten thousand nothingnesses which seem so all-important in the eyes of the idle and the vain. The real student approaches more nearly to actual happiness than any other person. His mind is too much and too

well employed to allow of his being fretted and worn by any of those petty cares which mere men of the world take so much unnecessary pains to create for themselves. Poverty and disease for him lose the greater part of their evil; with every new year he finds new delight, new absorption in his beloved studies. Poverty cannot crush him, age itself cannot depress him; while it pleases God to leave him his reason and his sight, he is never without pure and precious enjoyments. What a contrast between the old age of the man of study, and that of the man of dissipation!

HAWKING.

EXCEPT from an occasional newspaper report of the proceedings of the hawks, kept by the duke of St. Albans, in his character of hereditary Grand Falconer of England, we of the present day have no more notion of the sport called hawking, than we have of the barbarous quail-fighting of Japan. And yet this now obsolete, and scarcely heard-of sport was once the pastime, *par excellence*, of the noble, the fair, and the wealthy. No great establishment was without its falconer; a personage, too, if well skilled in his profession, quite as saucy in his meuse, as any stud-groom of modern times can possibly be in his stables;—and that is saying a bold word. Such an office being so important in a private establishment, the Grand Falconer of England, it will easily be imagined, was a person of great power and influence, which will account for its being made hereditary in the family of the nobleman alluded to above.

On the continent, hawking was a favourite amusement much earlier than in England; but, according to a passage in "Warton's History of Poetry," it was introduced even into this country as early as the eighth century. From the passage in question, we gather that an Englishman who had obtained a French bishopric, sent to Ethelbert, king of Kent, a hawk and two falcons, and that the present was so much admired, that the king of Mercia requested the prelate to send him two falcons trained to killing herons.

When once fairly introduced, the sport became rapidly, we may say intensely, fashionable; to be skilled in falconry was deemed as necessary to a gentleman's education, as it now is to be skilled in riding. Hawking was usually performed on horseback; the flights of the gallant birds, being, of course, best so followed. But it was far from uncommon to pursue the sport on foot, the sportsman carrying a "leaping-pole," to aid him in crossing ditches and narrow streamlets. For we find in Hall, that Henry VIII. while thus hawking in the county of Herts, broke his pole in attempting to leap a ditch, and would infallibly have been drowned but for the courage and fidelity of a footman, who extricated him from his unpleasant and perilous situation. What reward was bestowed upon this footman, history records not; and yet what an achievement was his! What a marvellous change in the aspect of the whole civilized world was made in the course of the life thus imminently periled, and thus, as if by mere accident, prolonged!

In the sixteenth century the passion for this sport had arrived at a pitch perfectly ridiculous, as witness the following passage from "The Shyppe of Fooles:—"—

"Into the church then comes another sotte,
Withouten devotion, jetting up and down,
Or to be seene, and shewe his garded cote;
Another on his fist a sparhawke or faucine,
Or else a cokoo wasting so his shone
Before the autler he to and fro doth wander
With even as great devotion as a gander."

It was not, it thus seems, sufficient that a lady or gentleman should scarcely ever ride on horseback without carrying "hawk on fist,"—the hawk being prevented from absenting himself without leave by jesses or bandages of silk or leather, but that the dandle that time must carry their "hawks on fist" even to places of worship! Certainly such a ridiculous, as well as indecent practice, richly merited the vigorous lashing of the satirist, as they who were guilty of it right well deserved the contemptuous epithet—"sottes."

The legs of the hawk were usually adorned with silver bells, fastened on by straps of leather, called bewits. In one of the old dramas of Heywood, these bells are thus spoken of—

"Her* bells, Sir Francis, had not both one waight,
Nor was one semi-tone above the other;
Methinks thee Milane bells do sound too full,
And spoile the mounting of your hawke."

EXPLANATION OF THE PRINCIPAL TERMS MADE USE OF IN ASTRONOMY.

(Continued from p. 320.)

Ophiuchus, or *Serpentarius*, a northern constellation, comprising sixty-seven stars.

Opposition, an aspect of the stars or planets when they are one hundred and eighty degrees distant from each other, marked in the Ephemeris 8.

Orbis Magnus, the orbit of the earth, which describes in its annual revolution round the sun.

Orbit of a planet, the curve, or path, which a planet describes in its revolution round the sun.

Orion, a southern constellation, containing ninety-three stars.

Pallas, one of the lately discovered planets, and the seventh in order from the sun.

Parallax, the difference between the places of any celestial object, as seen from the surface of the earth and from its centre.

Parallax of the earth's annual orbit is the angle at any planet which is subtended by the distance between the sun and earth; or it is that change of place in the planets which arises from their being seen from different points of space as the earth moves round the sun.

Parallel Sphere is that position of the globe in which the equator is directly parallel to the horizon.

Parallels of latitude are small circles of the sphere drawn parallel to the equator.

Pavo, the peacock, a southern constellation, consisting of forty-seven stars.

Pegasus, a constellation in the northern hemisphere, composed of fourteen stars.

Pendulum, a body that swings to and fro about a fixed point, and which, on account of its equal vibrations when performed in small arcs, is made use of in measuring time.

Penumbra, the faint shadow which always accompanies an eclipse, and produces a partial obscurity of the body when seen from that part of the earth on which it falls.

Periciti, those inhabitants of the earth who live under the same parallels of latitude, but on opposite sides of the meridian.

Perigeon, that point of a planet's orbit in which it is at its least distance from the earth.

Perihelion, that point of a planet's orbit in which it is at its least distance from the sun.

Period, a certain length of time after which eclipses and other celestial phenomena return in the same manner as before.

Periphery, the circumference of a circle, eclipse, or any other regular figure.

Periciti, the inhabitants of the frozen zones: they are so called on account of their shadows going round them for six months, or falling towards opposite points of the compass.

Perseus, a northern constellation, composed of sixty-seven stars.

Phases, different appearances of the moon and planets, according as a greater or smaller part of their illuminated hemisphere are presented to our sight.

Phœnix, a southern constellation, comprising thirteen stars.

Phosphor, a name given to Venus when she is a morning star.

Procyon, a fixed star, of the second magnitude, in the constellation of Canis Minor.

Pisces, the Fishes, a zodiacal constellation, consisting of one hundred and ten stars.

Pisces Volans (the flying fish), a southern constellation, containing seven stars.

Plane, in astronomy, is an imaginary surface, supposed to pass through the centre of the earth, and other planets, and when extended to the heavens, is called the plane of a planet's orbit.

Planets, the bodies which in our system regard the sun as the centre of their orbits; they are in number eleven, Mercury, Venus, the Earth, Mars, Vesta, Juno, Ceres, Pallas, Jupiter, Saturn, and Uranus.

Planetarium, an instrument made use of for showing the phenomena of the heavenly bodies.

Pleiades, seven remarkable stars in the constellation Taurus.

Polar Circles, two small circles of the sphere, at a distance of twenty-three degrees and a half from the poles; that circle around the north pole being called the arctic, and that around the south pole the antarctic circle.

Pole Star, a star of the second magnitude, in the tail of the Little Bear; so called from its apparent proximity to the north pole of the world.

Poles of the World, those two points which are at the extremities of the earth's axis; or when referred to the heavens, the two points that lie directly above them.

Projectiles, such bodies as are put into motion by any impelling force, such as a stone thrown from a sling, an arrow propelled from a bow, or a bullet discharged from a gun.

Primum Mobile, an immense sphere, which the Ptolemaic system was supposed to turn round the earth, as a centre, every twenty-four hours, and to carry with it the sun, moon, and planets.

Precession of the Equinoxes, a slow motion of the two points, where the equator intersects the ecliptic, which are found to retrograde about fifty seconds every year.

Quadragesima, the first Sunday in Lent; it is so named on account of it being about the fortieth day before Easter; and for a similar reason the three preceding Sundays are called severally Quinquagesima, Sexagesima, and Septuagesima.

Quadrant, the fourth part of a circle, or an instrument made use of for measuring angles, and taking the altitudes of the heavenly bodies.

Quadratures, or quarters; those phases of the moon which occur between the opposition and conjunction, and the reverse; one being called the first quarter, and the other the third.

Quartile, an aspect of the planets when they are ninety degrees, or the quarter of the zodiac, distant from each other, denoted in the ephemeris by □.

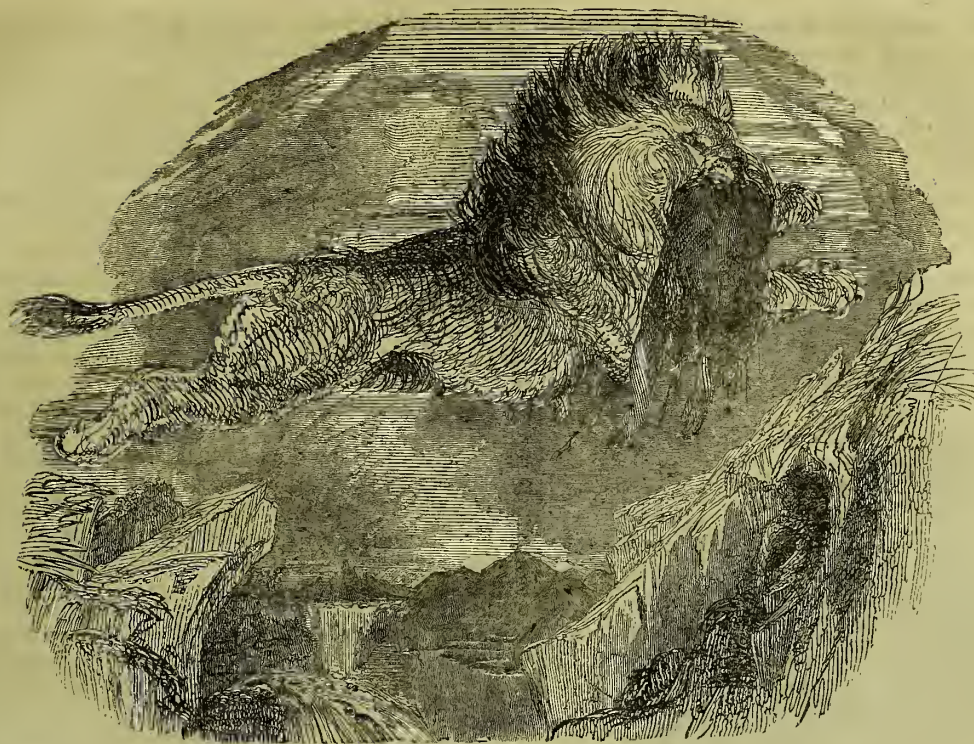
Quiescent, the state of a body when at rest, used in opposition to motion.

Refraction, that variation which the rays of light experience in passing through mediums of different densities, and which occasions the heavenly bodies, when viewed obliquely through the atmosphere, to appear at a greater height above the horizon than they really are.

Regulus, a brilliant fixed star of the first magnitude, situated in the heart of the constellation Leo.

Reflection, the return of the rays of light, after approaching so near the surface of bodies as to be repelled or driven backwards.

Repulsion, that inherent property in bodies, by which, if they are placed beyond the sphere of their attraction, they mutually repel one another.



THE LION.

THE silly tales which are told by mere routine writers on natural history about the "generosity" of the lion are doubly inexcusable; for they are contradicted not only by numerous well-authenticated facts, but also by the very anatomy of the animal, however transiently or even superficially glanced at. The few words we said upon this subject in a former article have, since we saw them in print, struck us as being scarcely sufficient to correct an error, which, gross as it is, has, by the successive copying of successive writers, become almost as general as it is gross; and as pictorial representations are by no means without their share of power in impressing facts upon the mind, we have employed our artist to aid us in showing the lion in one of his much-talked-of "generous moods," and also in showing the organ of "generosity," with which this carnivorous quadruped is furnished by nature.

A single glance at the lion, even when in confinement, and, comparatively speaking, tamed, shows an animal disposed to any thing but "generosity." His eye has all the furtive and sidelong slyness of that of the cat, and its lurid hue sufficiently bespeaks the boiling and fierce nature of his blood. Disturb him in the den to which he is confined, and then mark his malignant glare, and the passionate and nervous agility with which he paces around his narrow limits. Compare your own impressions of our tawny and "generous" friend with the dulcet nonsense of routine writers on natural history, and you will be in no danger of being misled by their asseverations, or of quoting with grave countenance and serious belief the harmonious mistake—that our tawny savage

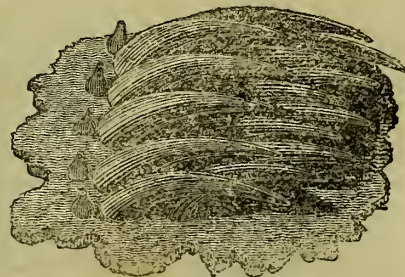
——— will flee
From a maid, in the pride of her purity."

Tortured by a fierce appetite, which requires not a little food to appease it, the lion will attack not merely beasts, but men, women, or children; and when writers gravely tell us

No. 255.

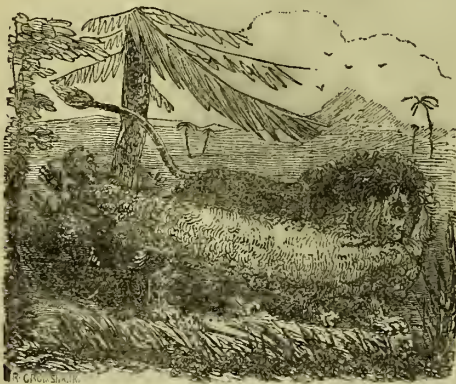
that the lion only attacks human beings when sorely pressed by hunger, and unable to procure any other prey, they ought, in candour, to add that the lion is by no means partial to long or excessive fasting; and it would by no means lessen their usefulness if they were to admit that his preferring the flesh of horses or oxen to that of their owners, is rather a matter of taste in the article of food than proof and effect of leonine morality. Like all the other members of the cat family, the lion possesses a very large share of craft and cunning; and no doubt he eschews danger as far as possible. His terrific roar and his prodigious power enable him to subdue his brute prey with ease: man boldly, and frequently with success, resists him, and either slays him, or compels him to seek safety by flight. It is from fear, not from generosity, that he flies at the approach of man; and even that fear is frequently surmounted by his raging and blood-hungry appetite.

Nature never works in vain; and never, save to an animal of the most fiercely carnivorous appetite, would have been given such a tongue as that of which the annexed engraving is a magnified representation. The prickles with which the lion's tongue is thickly studded, are very similar, in shape and strength, to the talons of the domestic cat. What! your generous and moderate animal, having not merely a roar so awful as to astound even his fellow-savages of the woods, and paws so muscular



and bodily strength and agility so great, that he can at pleasure subdue almost any of them; not merely having these, and being goaded into perpetual ferocity by fierce hunger and still fiercer thirst, but also armed even in his very tongue with the most efficacious means of tearing the flesh from the bones of his victims! Ah, Messieurs the writers of natural history, this will never do for our belief, more especially with the crunch and crash still ringing in our ears, with which our favourite lion at the Surry Zoological Gardens tears off not merely the flesh from the bone of his uncooked dinner, but also pretty considerable lamina of the bone itself!

Our third engraving illustrates the following ludicrous circumstance—a ludicrous one, that is to say, in its actual termination, but one which might have proved of very tragic consequence to the human party concerned.



"A Hottentot at Jackal's fountain, on the skirts of the Great Karoo, had a narrow though ludicrous escape of his life; he was sleeping a few yards from his master, in the usual mode of his nation, wrapped up in his sheep's skin carosse, with his face to the ground. A lion came softly up, and seizing him by the thick folds of his greasy mantle, began to trot away with him, counting securely, no doubt, on a savoury and satisfactory meal; but the Hottentot, on awaking, being quite unhurt, though sufficiently astonished, contrived somehow to wriggle himself out of his wrapper, and scrambled off, while the disappointed lion trotted away with the empty cloak."

DEAFNESS; ITS CAUSES, PREVENTION, AND CURE.

WHEN speaking of blindness, we took occasion to remark upon the universality as well as depth of the sympathy of mankind with those who suffer under that truly terrible affliction. Deafness, we fear, is far less generally and completely pitied. The old phrase of *Surdus, absurdus*, seems to express the general opinion upon this subject; and it is far more common to be angry with people for not hearing what we say, than to reflect seriously upon the grievous misfortune which prevents them from doing so. All this is extremely unreasonable as well as extremely cruel, and, like many other unreasonable and cruel kinds of conduct, arises from a very blameworthy want of thought.

If people in general are very insufficiently inclined to commiserate the situation of the deaf, individuals, we verily believe, frequently bring the calamity of deafness upon themselves by their own want of due care. Disease of the ear,

however slight it may in the first instance seem to be, should meet with immediate attention; for in an organ at once so complicated and so delicate, there is, in strict truth, no such thing as a slight disease.

A person not accustomed to think seriously upon such matters, would very probably find some difficulty in believing that, out of the very simplest disease of the ear, the most lamentable and complete cases of deafness have been known to proceed. Such, however, is the case; and no one can be too careful to take even the simplest cases in time.

In a recent number of this work we had occasion to notice an admirable treatise on Cataract, by Mr. Stevenson. We very sincerely thought it the best work we had ever met with upon the subject; and it is with equal surprise and pleasure that we now have to notice a no less masterly treatise by the same gentleman on "Deafness; its Causes, Prevention, and Cure." The numerous citations of both native and foreign, and of both ancient and modern writers, place Mr. Stevenson's diligence as a reader in a light highly honourable to him; but that diligence is only one of the least of his merits. It is to his striking originality of thought, and his singular clearness of expression, that we feel most indebted. He has obviously reasoned keenly and laboriously upon every assertion of other authors, and not—as but too many writers have—taken every assertion to be true because of its having appeared in print; and he has as obviously relied far less upon books than upon that best of all guides to curative power—anatomy.

Neglect is among the causes to which Mr. Stevenson attributes deafness; and he gives several instances not only of deaf persons neglecting to seek cure, but even of surgeons imagining cases to be hopeless, when, in truth, the most formidable difficulty lay in the surgeon's erroneous diagnosis. Here it is that Mr. Stevenson appears to us to be especially indebted to his assiduous and successful attention to the anatomy of the organ. Cases of the most distressing, we might almost say loathsome, description are brought before him; professional men of high character and unquestionable talent shake their heads in despair, candidly confess that the case baffles their utmost skill, and conclude by pretty plainly intimating that they have no very sanguine expectation of meeting with the gentleman whose skill it will not baffle. What follows? Simply this: Mr. Stevenson takes the case in hand, and in a few weeks the patient is not only freed from the disease of the organ, and from the general debility and suffering superinduced by it, but able to hear the minutest sounds as well as though disease of the organ had never existed. As we have said that cases subsequently cured by Mr. Stevenson have actually been pronounced hopeless by professional men of high character and unquestionable professional skill, it will probably be supposed that Mr. Stevenson has some nostrum;—that he differs in practice from the rest of his profession. This is not the case. Merely topical remedies he has not a word in favour of; contrariwise, in various parts of his book there are plain proofs that he agrees with the late able though eccentric John Abernethy, in believing the bowels to be the great centre in which even surgical diseases of other parts of the frame are to be attacked with the best prospect of speedy and complete success. The great cause of his signal success in cases which had baffled the best skill of some of the ablest and most eminent men in the profession, is his intimate and laboriously acquired acquaintance with the anatomy of the ear, and indeed of the head in general. However complicated neglect or erroneous treatment may have rendered a case, this perfect knowledge of anatomy enables him to see at a glance the true first cause and seat of the disease. The

consequence is, that very few cases are incurable under his care ; and he gives us numerous instances in which supposed incurable cases have yielded at once to his treatment.

We greatly regret that our space will not at present allow us to extract from the very useful and well-written treatise to which we have alluded ; but if any among our numerous

readers be himself a sufferer from deafness, or at all interested in the comfort and welfare of any one who is, we can do him no greater favour, bestow upon him no greater benefit, than that of strenuously and warmly recommending him, in the first place, to read this book, and, in the second place, to consult its very able and humane author.

PRUSSIA AND POLAND.

PRUSSIA contains ten provinces, exclusive of Neufchatel ; its breadth from north to south varies from seventy to three hundred and fifty miles, while its length is not less than 1200 miles ; "stretching," said Voltaire, "along the map of Europe like a pair of garters." It lies between the 50° and 55° of north latitude, and between 6° 30' and 24° of east longitude. The population of Prussia amounts to 10,536,571 persons, averaging about ninety-nine to a square mile.

The physical appearance of territories so extensive is by no means varied. In Pomerania and other provinces, so slight is the slope towards the sea, that the tide would inundate the land but for a long range of sand-hills or artificial dykes. Level surface is the chief characteristic of the entire dominions ; and though there are some diminutive eminences, there is nothing in the whole of Prussia which can be denominated a mountain. In every quarter of the kingdom, however, lakes are more common than in any other country on the continent. The woods and forests are calculated to cover above seventeen millions of acres. Brandenburg, Westphalia, and other places, abound with large plains of sand, or are covered with heath. Silesia is extremely fertile, and marked by the number of its gentle inequalities. The whole of Prussia is beautifully diversified by the number of canals and rivers that intersect it in all directions.

In consequence of the number of marshes, frequent rains and inundations, the climate of Prussia is not esteemed a healthy one ; but in the western provinces the weather is frequently mild and genial. So great a variety is there in the several divisions of the kingdom, that in some parts the summer seems to have arrived, while in others the inhabitants are experiencing all the rigour of severe winter.

The government of Prussia is despotic, the whole executive and legislative power being vested in the king. The council of state consists of the royal family, and the ministers of foreign affairs, of the finances, of justice, of public instruction, of trade, of the public debt, of police, and of war, besides local councils for administering the laws in the provinces.

The first event of importance in the historical records of Prussia, is the overthrow of the original inhabitants by the knights of the Teutonic order. Their grand master, Albert, was a descendant from the house of Brandenburg, one of the oldest families in Europe. On the death of Albert, he was succeeded, in 1640, by his son Frederick William, who, by treaties with the Hessians and Dutch, added considerably to the Prussian dominions. Another treaty, that of Westphalia, concluded in 1647, joined to the dukedom of Prussia the bishoprics of Minden, Halberstadt, Magdeberg, and Camin, with other less important places. Frederick William died in 1688, carrying to the grave the love and regret of his subjects.

His son Frederick, by joining with William III. of England against France, succeeded in erecting the dukedom of Prussia into a kingdom, and he was crowned king at Königsberg, in January 1701, under the name of Frederick I. the emperor of Germany placing the crown on his head.

Frederick II., his successor, who came to the throne in 1713, was a great statesman, with dispositions decidedly military, though never engaged in actual hostilities. He had a singular predilection for tall soldiers, and the army was composed of the tallest men to be found in his dominions ; nor did he confine his selection to these, for he frequently violated national faith by picking up subjects of other states who reached his standard of personal altitude. Before his death, the Prussian army was not only one of the most numerous, but contained the best disciplined and accounted soldiers in Europe. This prince married Sophia, the daughter of George I. king of England, and left to fill the throne his son Frederick, afterwards surnamed the Great, who commenced his reign in 1740.

Unlike the life of his father, that of Frederick's was one of frequent war. During seven years he was uninterruptedly engaged in hostilities with various neighbouring nations, when, in addition to other calamities, 500,000 combatants fell in the field. In the few intervals of peace which occurred during his career, Frederick employed himself in promoting the true welfare and interests of his subjects. He founded academies and seminaries for learning, he invited scientific men and eminent scholars from every country in Europe—though it has been remarked that he treated them more as a regiment of soldiers than as philosophers ; he cleared waste lands, constructed canals, rewarded men of merit in every department of enterprise, and, in short, spared neither time or expense in promoting the internal resources and improvement of his kingdom. Besides these acts of political wisdom, he devoted his leisure to literary pursuits, leaving behind him the result of these labours in a "History of the House of Brandenburg," "Memoirs" of his own time, besides several poems ; amongst others, an heroic on the art of war.

In 1763 the king of Prussia cooperated with Russia in the invasion and destruction of Poland, and, at its dismemberment obtained a share in that unfortunate kingdom. The division was made thus :—

	Square miles.	Population.
To Russia	168,000	6,700,000
To Austria	64,000	4,800,000
To Prussia	52,000	3,500,000

Prussia had to deliver up a considerable portion of her Polish acquisitions in 1807 ; but by the treaty of Vienna, in 1815, she is guaranteed in the possession of 29,000 square miles, with a population of 1,800,000.

Frederick the Great, who died in 1786, at the advanced age of seventy-five, was succeeded by his nephew Frederick William II., during whose reign few events of much importance occurred ; and dying in 1797, he left the throne to his son, the present monarch. Frederick William III. joined his arms to those of Buonaparte in 1806, and invaded Hanover, which he annexed to his own dominions, by shutting the ports of the German Sea and Lubec against the British flag ; but in October of the same year the Prussian monarch found it expedient to declare war against his former ally, and the battle of Jena was the consequence, in

which Prussia lost 40,000 men, including twenty generals. The French afterwards invaded Silesia, Stralsund, Colberg, and Danzig, carrying victory and devastation in every direction. This war ended with the peace of Tilsit, and enormous losses were sustained by Prussia, besides immense pecuniary contributions to the French emperor. In 1813, however, Frederick joined with Britain, Austria, Russia, and Sweden, against France; an alliance which proved particularly fortunate for the English arms at the ever-memorable battle of Waterloo, the Prussian army, under Blücher, coming up to our aid at a most critical juncture. At the Congress of Vienna, in 1815, the territories lost during the war were again secured to Prussia; and since that period few events of historical importance have transpired in that kingdom.

Poland, after her partition between the three powers already named, received back at the treaty of Vienna her central provinces, which were erected into the kingdom of Poland, consisting of Cracow, Sandomir, Kalisch, Lublin, Plock, Masovia, Podlachia, and Angustow, and bounded by the respective acquisitions of Russia, Austria, and Prussia. The new kingdom consisted of 200 square miles, and 2,800,000 inhabitants, and was governed by a constitution of its own. In 1830, however, an insurrection took place at Warsaw, the capital; a short, and, to Poland, shockingly disastrous war with Russia followed, and by an *ukase*, or royal order, from the emperor of Russia, issued in the month of February 1832, Poland was declared an integral part of Russia, of which nation, at the present moment, it forms, politically speaking, a portion.

The crown of Poland, with the exception of five centuries previous to the year 1370, was purely elective, and during this early period was filled by the family of Piaste. The throne was frequently contended; and in 1586, one of the

four candidates which appeared was our own Sir Philip Sidney; but he was unsuccessful, Sigismund of Sweden having obtained it; who was followed by John Casimer, and he abdicated in 1668, retiring to the abbey of St. Germans, in France, where he died. John Sobieski next succeeded to the crown of Poland, and by the deliverance of Vienna from the arms of Soliman of Turkey, besides his political wisdom, enterprising and enthusiastic character, and invincible bravery, rendered himself one of the most celebrated men in the annals of his country.

The reign of Augustus II. was one of anarchy and rebellion; and from the time of his weak and inefficient administration, Poland rapidly hastened to that decay which has since fallen upon her. Her unfortunate geographical situation, in the midst, as it were, of so many powerful nations, has caused her to be frequently invaded by her neighbours, but by none so often and with so much success as by Russia; as we have before stated, she is, at last completely, and we fear permanently, conquered by that ambitious nation.

The Poles are, amongst themselves, divided into four classes, those of nobles, clergy, citizens, and peasants. They set little value on titles of honour; and the appellation of a gentleman of Poland is the highest distinction they aspire to. "The Poles," says a recent and accurate traveller, "seem a lively people, and use much action in their ordinary conversation. Their common mode of salutation is to incline their heads, and strike their breasts with one of their hands, while they stretch the other towards the ground. The Poles maintain, with unshaken tenacity, the customs and prejudices of their ancestors."

The Polish town of Cracow is celebrated for its salt mines; iron, marble, copper, and slate, are also produced in great abundance in Poland.

No. XI.—SE -INSTRUCTOR IN ASTRONOMY.

COMETS.



AMONG the very many phenomena which at once excite a strong and rational curiosity, yet defy the researches of science, are comets. Their nature, their place in the great economy of the universe, are unknown; and it is undecided whether they do or do not form part of our planetary machinery.

It no doubt was chiefly on account of the mystery in which these wanderers of the sky are enveloped, that, long after the old errors as to the solar system were exploded,

whole nations of otherwise rational people could not view the approach of a comet without a terror so extravagant and so infectious, that the very descriptions of it in history are absolutely ludicrous. War, pestilence, and famine, were the very least of the evils which were expected to be the inevitable consequences of the visit of a comet; and, as we have shown in a former number of this work, people even went to the length of supposing that the comet would actually come into collision with the Earth, and wholly destroy it. How sincere not a few of them were in their belief, we may fairly infer from the fact that very many persons made over all their lands and money to the Pope of Rome, while still more made a similar transfer to individual impostors, who skilfully and unfeelingly took advantage of the general delusion and the general panic.

Thanks to the "schoolmaster," there is not now, we dare affirm, in any part of our country, however obscure, any class of our countrymen, however poor, by whom such gross delusions would not be good humouredly laughed at and scouted. We have learned to look upon the comet admiringly, and with a noble and laudable curiosity; and to view it, even as we view a planet, as one of the works of an all-benevolent and all-beneficent Creator.

But though we have thus conquered the prejudice which made our forefathers so ludicrously anxious and alarmed, we

have not as yet thoroughly mastered the mystery of comets. What is known is, in substance, as follows.

Like the planets, comets are solid, opaque bodies, so far as concerns what is called the nucleus; the long-spreading, hair-like light, which they project from them, being received, as the light of our own planet is, from the sun.

Comets approach the Sun in long elliptical orbits, the nucleus, or head of the comet, becoming more and more bright as the distance between the comet and the Sun is diminished. After passing the Sun, the comet keeps still careering onward; and, in some instances, traverses the boundless realms of space during entire ages, ere it again makes its appearance; while, in other instances, the comet makes its appearance twice in a single century.

Though this great difference exists as to the periods of the appearance of different comets, the periods of some have been calculated, and their return predicted with great accuracy. As an instance we need only refer to the splendid comet of last year.

Dr. Long, in his able treatise on astronomy, showed that that comet would appear in 1835; or at least his proofs amounted to what the severest logic would have allowed to be the very highest degree of probability. He showed that the period of this comet was about seventy-six years. It appeared according to his statement in 1531, in 1607, in 1682, and in 1759.

Now a glance at his figures will show that he was justified in predicting its return in 1835. Thus—

	1607
	1531
	—
Period the first	76
	—
	1682
	1607
	—
Period the second	75
	—
	1759
	1682
	—
Period the third	77

Here, then, we have in round figures an average of seventy-six years to each of the three periods. Thus—

	76
	75
	77
	—
3)	228
	—
	76

and, if due allowance were made for the different months of the different appearances, we should find the periods exact, without taking the average.

With these data before him, the Doctor very reasonably as well as correctly predicted that we should see this comet again in 1835, because from 1682 to 1759, when the comet was last seen, gave the usual result.

	1759
	1682
	—
	77
	—
and	1835
	1759
	—
gave	76

How correctly as to fact, as well as ably as to theory, the Doctor predicted the return of the comet, we need not remark; nor need we add that we should as soon doubt about the dawning of any given day in this very week, as we shall that this comet will appear again in 1911.

The comet, of which we have here presented our readers with an accurate engraving, is that very splendid one which made its appearance in the year 1811. It was looked for with great anxiety by men of science, and was at length, in the early part of the month of September, discovered just below the constellation of the Great Bear, and in a line with the two stars called the Pointers.

This magnificent comet was visible for upwards of two months. It passed the end of the Bear's tail, and the constellation Hercules; and at the end of November, when near the constellation Aquila, it ceased to be within our view.

"NOT A BIT OF PRIDE."

How often may we not hear these words pronounced, as though those who pronounce them deem that it would be difficult to devise a higher or more indisputable panegyric! And how many otherwise sufficiently shrewd and intelligent men do we not meet with, who pride themselves upon no one circumstance of their existence so much as upon their having "not a bit of pride!"

Both of these classes of persons will very probably think us exceedingly hypercritical for finding something to blame in their pet phrase. They will not perhaps differ very widely from us as to the estimation in which we hold the misapplication of other forms of speech; such, for instance, as "Very Satirical," "Very Ingenious," and "Poverty's no Disgrace;" but that we should deem the repudiation of pride to be blameworthy, will by no means stand so well in their sight. We trust, however, that briefly as we intend to speak upon the subject, we shall be able to show that we do not blame unreasonably or unjustly: and we trust, too, that if among our very numerous readers there be any who have been in the habit either of using this formula of false praise, or of hearing other persons use it without at the least mentally reprobating it, we shall disabuse them of a really dangerous and gross error.

Pride is of two sorts, true and false; and if the phrase of which we are speaking referred to the latter, no one would be more ready to use it by way of eulogy than we ourselves should. False pride cannot be too often or too severely reprobated, whether directly or by implication. It is almost invariably the offspring and the companion of a weak head, and of a cold heart; and it is utterly incompatible with the right interpretation and faithful performance of some of the most important and indispensable of our duties as Christians. A heart full of self-admiration, and contempt of all the rest of our species—an insolent hauteur of speech and eye, and a swelling port—these are so far from giving, as falsely proud men suppose them to give, any claim to respect or admiration, that they in fact deserve all the pity which the inevitable contempt of intelligent beholders can afford to them.

Let no one suppose that, because we quite sincerely and plainly condemn this paltry pride, we are therefore wrong in censuring the phrase which stands at the head of this essay. If our friends will take the trouble to define their terms as they go on, they will find that we are perfectly consistent in censuring their phrase, and at the same time censuring false pride; just as we may be upon exceedingly good

terms with the fire, which the season already makes both useful and ornamental to our grates, yet deprecate such fires as that which once burned down the greater portion of the city of London.

Far, very far indeed, are we from recommending the harsh feelings and the insolent airs which are usually termed pride; but pride, in the proper sense of the word, we hold to be among the most important and valuable possessions of every young man who holds that the virtues are to be conserved, and the vices avoided.

Your hair-brained and hilarious personage, who prides himself, and is praised by others, because he "has not a bit of pride," is to us a most painful spectacle. We see in such a man one whose very virtues are but an accident, and one whom mere accident may convert into a dissolute and debased creature, equally a disgrace to himself and a perilous pest to all, but more especially the youthful, who may have the misfortune to be within the sphere of his influence. He is—"Hail fellow, well met!" with every one, without regard to the proprieties of society, or his own proper position; and too frequently either without thought or care about the good or ill morals of the persons with whom he is thus unwisely and needlessly familiar.

It is not at all improbable that this sort of excessive and overweening frankness and familiarity may in the first instance arise chiefly or wholly from want of thought; but here, as in very many other cases of human error, vanity soon steps in to aid in weakening the moral sense, and strengthening and confirming the evil habit. Accustomed to hear himself lauded for his want of pride, the flattered and self-complacent auditor soon forgets that there is a very wide gulf which separates true pride from false pride; the pride which is at once a consequence and a conservator of the virtues, from the pride which is the result as well as the outward and visible sign of a bad heart, and a very imperfectly cultivated intellect. Confounding these two very distinct entities, he but too soon learns to look upon vice and meanness, if not with an approving, yet most surely without the duly disapproving glance; and rarely indeed does man look upon vice without disgust unless by quicker or slower degrees to become its votary, and in the end its victim.

With reference to this last assertion, we are not unaware that we have the authority of the poet against us. We know that it has been poetically said that—

"Vice is a monster of such hideous mien,
As to be hated needs but to be seen."

But we, for our own part, fear that the real hideousness of the monster vice is rarely seen through until escape from that monster's embraces has become a matter, humanly speaking, of sheer and utter impossibility. We doubt whether any one can look upon vice without being to a certain extent the worse for the sight; the mere knowledge that such a sight conveys, can scarcely fail to diminish the self-respect which accompanies a perfectly unsophisticated feeling, and at the same time to harden our hearts against others while making us suspicious of ourselves. But if any one can look with comparative impunity upon the worse portion of what life must inevitably present to the gaze of all, he can do so who is duly armed with a just pride, founded upon sound moral and religious feelings. His pride is a faithful sentinel, warning his virtue of the first approach of vice; and what pride revolts from, reason will surely never allow to have habitual approach.

To boast of having no pride, is only to say, in other words, that we have so little care about preserving ourselves from the contaminating influences of vice and vulgarity, that we

not merely willingly, but exultingly, throw down the very strongest barrier which can be opposed to them. An error so gross as this, though it may partly originate in mere unreasoning and unreflecting impulse, would scarcely ever become confirmed and permanent, but that, being a seemingly amiable error, vanity can come to its aid. The fondest advocate of that self-degrading and self-endangering state, having no pride, would not at the outset see or hear without rebuke a tithe of what he will subsequently laugh at, or pass unnoticed, even in the way of mere vulgarity. But politeness of feeling is like the virtues; it cannot be laid aside with impunity; and every time that we expose ourselves to contact with the vicious or the vulgar, while unguarded by a due pride, we give a new blow to our quickness of perception between right and wrong, as well as to the depth and poignancy of our love of the one, and detestation of the other.

We trust that we have said quite enough to show to our readers, that there is a strong and an eternal necessity for having some pride—to wit, that proper pride, which, by making us look with loathing and dislike upon the vice or the vulgarity of others, provides us *pro tanto* with a security against our being led, step by step, and half unconsciously, into a participation of either the one or the other.

In conclusion we beg to remark, that phrases which profess to have a universal import, are almost uniformly erroneous. They, for the most part, appeal to some feeling which under certain restrictions is perfectly unexceptionable; they excite the hearer's mind upon this particular point, and then enlist into the service his general vanity. The restrictions and the reservations which right feeling and sound logic would suggest, are put altogether aside by the warm and energetic pleadings of vanity; and what would be right under certain circumstances, is at once set down as being right at all times, in all places, and under all circumstances. Guard well, oh youth! against allowing your vanity to take part in the combats between impulse and duty: but for this energetic but most sophistical and unfair pleader, many and many a fortune would have escaped ruin, many and many a conscience would have escaped that most terrible of all earthly tortures—remorse.

WAGERING.

MANY of the grosser follies of our remote ancestors would be scarcely credible to us, were not the history of the past so strongly corroborated by observation of the present. How incredible, for instance, does it not at first sight seem, that in a nation like England, a law so vile, and, at the same time, so ludicrously silly as that which sanctioned the "wager of battle," should exist during long centuries,—all ranks of men looking up to it as the most infallible test of the guilt or innocence of mutually accusing persons! Difference of stature, age, bodily strength, and skill and activity—in the use of legal weapons, was made no sort of account of by this consummately barbarous and brainless law; and accordingly, he who had the advantage in the difference usually existing in some or all of those respects, could quite easily earn character and avoid punishment by the simple process of adding the crime of public murder to whatever private crime he had formerly committed, and now chose to deny. A blessed state of things, surely! That this law remained in force even in the present century, is only too

certain : its existence disgraced our national character, although practically, thank Heaven ! it had long ceased to be the cause of unjust bloodshed.

Something of the same absurdity which dictated this most absurd law is still to be remarked in not a few of the expressions and customs of private life ; one among these customs we consider that of wagering. It may, probably, be supposed that such a custom, indicating as it does so great a contempt of sound logic, must of necessity originate with, and be confined to, the very lowest of the population, both as to circumstances and intellect ; but, in truth, the principle upon which wagering is based, the capital logical error which gives rise to it, may be discovered in full and noxious activity among all classes of people. Wagering and duelling, different as they are in effect, yet proceed from the same erroneous source. A gentleman is truly or falsely accused of conduct incompatible with the character of a man of honour. Is it true ? Why, then, as a man, having, in spite of his unhappy lapse from propriety, not wholly lost sight of his duty to God and man, it should be his care to make the fullest possible admission, and not merely endeavour to atone for the past, but also resolve to let no part of his conduct require such atonement in future. On the other hand, is he, in

fact, calumniated by an ignorant or malicious accuser, and quite innocent of the evil that is laid to his charge ? Surely in that case, an appeal to the laws of his country is the remedy which common sense and a right feeling would suggest as his only fitting course of procedure. But the honour of a gentleman is not to be thus vindicated. No ; he cannot heal his wounded honour without *wagering* ; he stakes his life against his opponent's life, just as people in a lower sphere resort to wagering the instant that they find themselves beaten in argument. The wager, whether of a life or a guinea, has, in fact, not a jot of effect upon the question in dispute. If to be decided at all, it can be decided without the pistol or coin being called into the account : but your wagers, whether they feel compelled to risk or commit murder, to vindicate their honour, or simply substitute purse for argument, exclaiming " If I am a fool, my money's none ! " are very comfortably indifferent about the moral or intellectual value of their wagers ; and, in all probability, if this paper fall into their hands, we shall receive sundry letters, per twopenny—we request that they be post paid !—not merely assuring us that our notions are decidedly Gothic, but also offering us very considerable wagers, by way of convincing us !

No. XVI.—SELF-INSTRUCTOR IN BIOGRAPHY.

NAPOLEON BUONAPARTE.

(Continued from p. 334.)

CIRCUMSTANCED as Europe then was, it would be a by no means easy task to point out the position which would have been more favourable to the young, fierce, and yet cool and calculating ambition of Napoleon, than that of general-in-chief of the army of Italy. In what we may, without any exaggeration, call the incipient civil war, in which his energy, courage, and skill made all that the sections of Paris could do against him worse than nothing, he had, after all, only proved what he could do under the direction of others. He had proved himself skill, resolute, and prompt ; and, above all, he had shown that he possessed that rare and precious gift, military tact ; that quality which, as we shall by-and-by perceive, he so well knew how to estimate at its true value ; but he was, in the affair of the thirteenth Vendemiaire, as to all the higher qualities of the military art, compelled to be, in some sort, a mere machine in the hands of others.

In that every way admirable work, "The Curiosities of Literature, by B. D'Israeli, Esq.," there are many and striking illustrations of the important difference between real and routine history. We doubt whether the time has as yet come for a French historian or critic fairly to appreciate the secret history of that period at which Napoleon, with his hot ambition, as yet indefinite and unmethodized, was entrusted with the command of the ever-memorable army of Italy.

Whensoever the day shall arrive for the perfect revelation of the secret history of France, at the period to which we have alluded, we venture to predict that merely personal and petty affairs will be found to have had infinitely more important effect upon the subsequent march of events than any historian, whether a Scott or a Hazlitt, a Bourrienne or a Segur, has as yet made allowance for.

The more we ponder the events of that very important period of French history, the more firmly do we feel persuaded that Napoleon owed his promotion, far less than is generally supposed, to his own merits, great and brilliant as

they most unquestionably were. The orders sent to him by the Directory, the false information given to him, at a most critical moment, as to the capabilities, as a reinforcement, of the army of Germany ; and, above all, the remonstrances which he sent to the Directory, and their replies, are sufficient, in our judgment, to point to some personal motives on the part of men in power at Paris, as the true solution of the cause of his being kept in a command which all knew that he had the talent, and few could have been ignorant that he had the will, to make very formidable, not merely to foreigners and avowed enemies, but even more so to the leading men of his own country. Weak men ever prefer the greater distant to the smaller instant peril ; and the patriots of France, like the patriotic pretenders of other countries, both ancient and modern, seem to have had a very profound horror of giving up place and profit while the one could be held and the other received.

The more carefully and repeatedly we canvas all the circumstances of Napoleon's command of the army of Italy, the more profound and the more inevitable becomes the conclusion, that he owed the continuance of his authority, in no slight degree, to the mingled fear and hatred of men in power at Paris. Even if they already saw—though we do not think they did—the whole of the advantage to which he was both able and willing to turn the peculiar position in which he found himself, we are of opinion that the leading French civilians were well inclined to let the indomitable and impracticable soldier get any prospective and as yet doubtful advantage, rather than have so formidable, prompt, and unscrupulous an antagonist to combat against them on the instant, and at home.

That Napoleon himself viewed matters in this light, will, we think, be pretty clear to any one who will take the trouble attentively to examine the course pursued both by Napoleon and by the men in power at home. His offers of resignation to them, contrasted with his professions to his comrades in arms, and the literary servility of the Directory to him,

compared with their practical playing at cross purposes, can, we are of opinion, leave no doubt in the mind of any careful examiner and competent reasoner, (that each party was doing its best to outwit the other. Napoleon, on the one hand, calculated rightly enough that his resignation would not lightly be accepted; and the Directory, on the other hand, would sooner have done any thing than have brought back to France an adversary who was, quite obviously, as willing as able to make their respective cabinets any thing other than beds of roses.

All this manœuvring between Napoleon and the authorities at home, are by us only noticed as grand landmarks, so to speak, by which travellers through the mazes of the French history of that period may guide their footsteps. The time for Napoleon's civil power was not yet come; and he very wisely used the bad faith and the bad policy of his opponents, for the present, only as means by which to secure his military rank, and facilitate his military operations.

Before we proceed to glance rapidly over Napoleon's military career, it may not be amiss to say a few words about his first marriage. The French account of this marriage seems to us—though we must in candour confess that we do not find confirmation in the commentaries of any other writer—to partake very considerably of the French style of clap-trap and display. In a few words, it has always appeared to us that Josephine Beauharnois had determined to be married to Buonaparte, and did not hesitate to take bold and ingenious steps—about the delicacy of the procedure we say nothing—to bringing about the, on her part, much desired match.

The French writers assure us that Eugene (Josephine's son, by her deceased husband,) was, at fifteen years of age, so desirous to obtain his father's sword, which was in the possession of Buonaparte, that he introduced himself, and solicited its restoration. On receiving the sword, the youth, it is said, showed so much noble emotion, that the future emperor was much interested. The romance does not end here. The widow Josephine was so much delighted with the reception of her son by the now rising Napoleon, that she could do no less than wait on the young warrior to return him her thanks. In those days we are bound to suppose that ladies could write letters, and lackeys deliver them; but Josephine chose personally to pay her respects, and return her thanks. Looking at their speedily consequent marriage, and at her subsequent weak, extravagant, yet loose and artful conduct, we cannot help thinking, with all sorts of respect and deference to Messieurs the French historians, that Josephine had fairly set her cap at Buonaparte, and that he, shrewd as he was, was fairly cheated into matrimony by her union of artfulness and personal attraction.

The early career of Buonaparte, as general of the army of Italy, was such as to justify all that his friends hoped from him, and all too, that his enemies feared. Marmont, in writing to Bourrienne, well describes the rapidity of the young emperor's progress. "It is," says Marmont, "a fine thing, with an army of less than thirty thousand men, in a state of almost complete destitution, to have beaten, eight different times, an army of from sixty-five to seventy thousand men, obliged the king of Sardinia to make a humiliating peace, and driven the Austrians from Italy."

The conduct of the conquering Napoleon towards the senate and people of Venice afforded a striking proof of his possessing equally the talents and the duplicity of a statesman. That Venice, proud of her antique glory, and unaware that, though the halo of that glory still lingered around the city of St. Mark, the wealth and the power of the olden day were as irrevocably passed away from her as those days themselves;

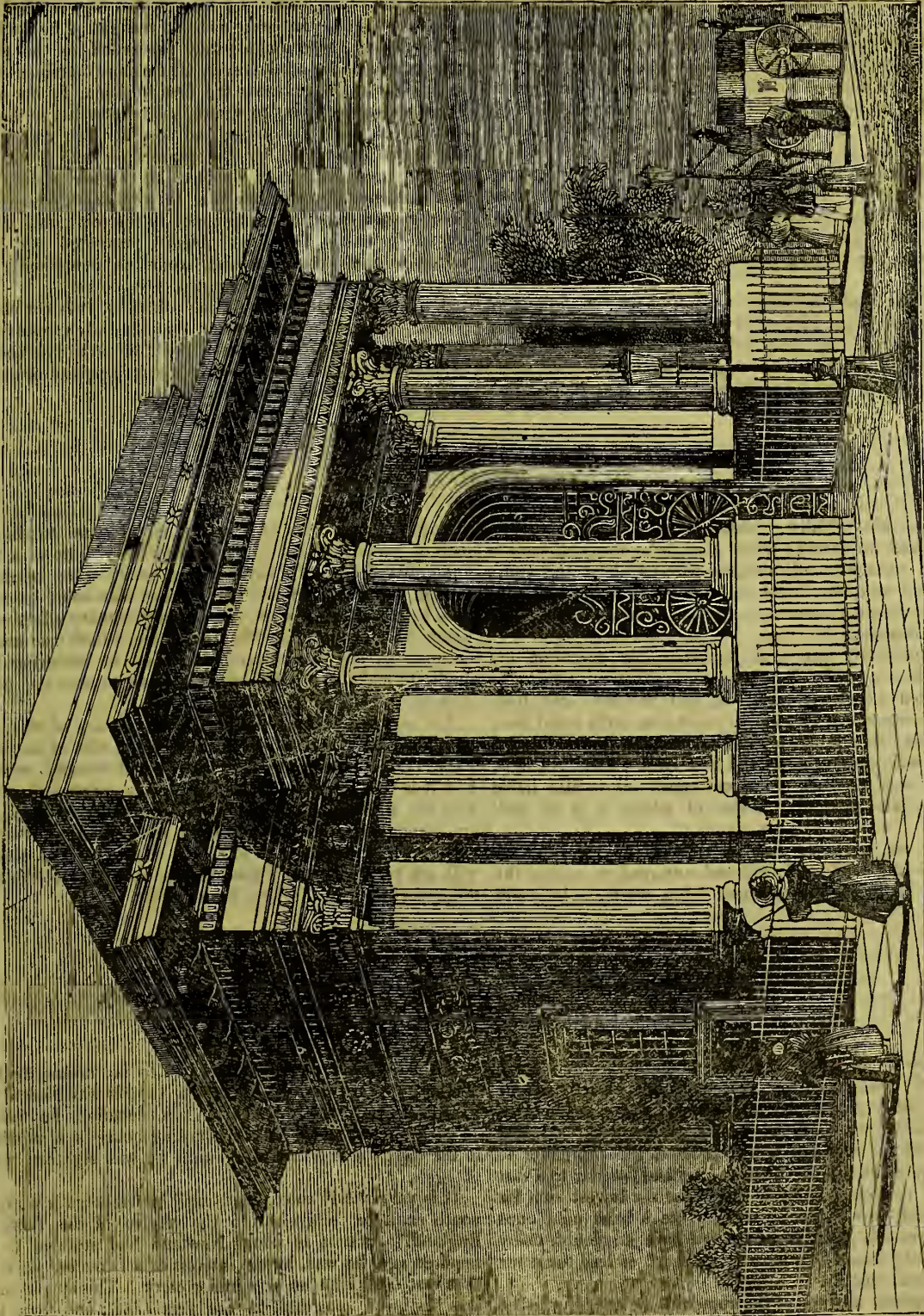
that Venice, at once declining, corrupt, yet full of vain-glory, should look with a discontented and troubled gaze upon the progress of the French in Italy, was perfectly natural and justifiable. Accordingly, we find that the senate of Venice made military preparations; the siege of Mantua making them more than ever jealous as to the final intentions of France. Napoleon seized with alacrity upon the first pretence for a quarrel with them; and he easily found that pretence in the fact of their having given a kind and hospitable reception to Monsieur, afterwards Louis XVIII. It might be said that we prophecy after the event, and that we affirm what Napoleon's thoughts were, thereby reasoning from what his actions were subsequently; but so far is such from being the fact, that our statement is founded on Napoleon's own words, in a despatch to the Executive Directory of France. This despatch so strongly characterised his subsequent political conduct, that we cannot forbear transcribing the passage relating to Venice.

"The senate of Venice lately sent two judges of their council here to ascertain definitively how things stand,* I repeated my complaints. I spoke to them about the reception of Monsieur. Should it be your plan to extract five or six millions from Venice, I have expressly prepared this sort of rupture for you. If your intentions are more decided, let me know what you mean to do, and wait until the favourable moment, which I shall seize according to circumstances; for we must not have to do with all the world at once."—A tolerably cool specimen of Napoleon's good faith as to treaties.

(To be concluded in our next.)

PANDECTS NOT LOST, AS GENERALLY SUPPOSED.—The account uniformly given by authors is, that there was but one copy of the Pandects extant in Europe in the twelfth century, and discovered in the manner mentioned. That the Pandects were little known, and less read, on account of the ignorance of the times prior to the above period, may be readily granted; but that all the copies of this valuable book were lost or destroyed throughout Europe, except that at Amalphi, can scarcely be credited. This extraordinary anecdote in the history of the Pandects, bordering on the marvellous, might, no doubt, contribute in some degree to the general belief of it; but it is evident, from Gianovi's History of Naples, (lib. ii. c. 2,) that notwithstanding the destruction of many valuable books, during the invasions of Italy, by the barbarous nations, after the sixth century, copies of the Pandects escaped the general devastation, as appears from the frequent references made to them by Ivo of Chartres, in his Epistles, 46, 49, &c. It is likewise certain, that Justinian's Institutions were preserved in Italy, by Abbot Desiderius, in his library of Cassino. Theobald, archbishop of Canterbury, brought the Pandects into England, soon after his consecration in 1138. Besides, it is known that the study of the Roman law was general in the English schools in 1149, and was publicly taught by Rogerius Vacarius, a Lombard lawyer, to a numerous audience.—*Erskine's Institutes*. Edinburgh, 1773, lib. i. tit. i. par. 32, p. 10.

* The Venetians, as we have previously said, being filled with well-grounded fear and suspicion.



THE TRIUMPHAL ARCH.

of another, were betrothed at an early age, and with the willing sanction of their respective parents. It unfortunately happened, that just as the nuptials were about to be celebrated, the parents of the lady had an application made to them for her hand by a gentleman far advanced in years, but infinitely more wealthy than the more youthful suitor. After much vain entreaty to be allowed to fulfil her promise to her accepted lover, the young lady at length consented to obey her parents; but the union was immediately followed by a violent illness, and the, at least, seeming death of the lady.

Intelligence of her interment reached her lover; and he, calling to mind that the buried lady had, in her childhood, been attacked by lethargy, hastened to the sexton's, and with his aid disinterred and bore her to a place of safety, where prompt and persevering medical aid actually restored her to life.

When she was sufficiently well to bear the fatigue of travelling, the twain proceeded to England, and as the lady had been buried, she now conceived herself free from all engagement, and fulfilled her original promise.

After residing here for above ten years, they judged that

they were sufficiently forgotten in France to be able to return thither without any hazard of being recognized. The event disappointed their hopes; for scarcely had they reached their native land when they were met and recognized by the lady's real husband, who immediately proceeded to the proper tribunals, and demanded redress. The counsel retained by the lady, pleaded that whereas the first husband, by his unfair use of his superiority as to wealth, had reduced her to the very seeming of death, the second had been her own choice, and the choice sanctioned by the parents of both; and that he had, moreover, now doubled his former claim upon her hand, by delivering her from the real death which must have ensued from her continuance in the tomb, and which, though it would have undoubtedly prevented her being united to the second husband, would as undoubtedly have prevented the first from laying any claim to her.

How the tribunals would have decided, it is not easy to guess. It is probable, however, that the lady's friends and lawyers judged that her defence would not avail; for she and her chosen husband made their escape to England before the cause could be brought to a conclusion.

TRIUMPHAL ARCH.

Doctors proverbially "differ" upon some particular matters; and we have no doubt that there are gentlemen of very good taste who will disagree with us about this arch; be that as it may, we cannot help confessing that we think it one of the finest structures in London, and quite the least tastefully disposed of.

Its magnificent size and its admirable execution are merely thrown away in its present situation;—had the former been somewhat increased, and had the arch been made the entrance to Piccadilly, no city on earth could have been more favourably circumstanced for impressing a foreigner with admiration at the first *coup d'œil*. As it is, it is not only needless as an entrance, but is also liable to escape that particular notice of which it is so well worthy.

By the way, we never pass this truly splendid work of art without feeling both surprised and annoyed at seeing the little plot of ground in its front lying waste. It really

almost argues a want of a perfect moral sense to allow an inch of garden-ground to lie idle in the vicinity of a large and crowded city. To say nothing about mere beauty,—though one would suppose that no sane man could be otherwise than fond of flowers,—the highly salutary effect which plants have in purifying the atmosphere, which man and his occupations are so constantly engaged in rendering foul, ought to make it impossible for any one to have the power without the will to plant them.

Let any one compare the neglected garden of this arch with the trim and tasteful culture of the garden of the Hyde Park Lodge, nearly opposite, and he will wonder, with us, how it is that the people who inhabit the apartments of the arch are allowed to give such an opportunity to foreigners and strangers to impugn our taste and feeling. We trust that even this brief notice of such a huge practical blunder will, ere very long time shall elapse, cause those who have the opportunity to "reform it altogether."

No. XIX.—SELF-INSTRUCTOR IN BIOGRAPHY.

ABRAHAM NEWLAND.

To many of our readers the very name of this gentleman is probably unknown; yet at the commencement of the present century that of Nelson himself was scarcely more widely known, or more frequently pronounced. At that time circulations of small notes rendered the "promise to pay" of the cashier of the Bank of England familiar to a vast number of persons, who, now that 5*l.* is the lowest sum for which a bank note is issued, scarcely see a bank note once in a twelvemonth; and there are, we have no doubt, many thousands of persons who have never heard or read the name of the present cashier.

Mr. Newland was one of the numerous instances furnished in this country of the power of integrity and industry raising their possessor from a very humble to a very elevated sphere, even in the absence of any very remarkable share of what is called genius.

His father was a respectable, but by no means wealthy banker in the Borough, where our subject was born in the year 1730. Having received a plain education, he was, at an early period, placed in the counting-house of a merchant in the city, where he remained until he was eighteen years of age.

It is very wisely ruled, that, until his eighteenth year, no youth shall be received into the service of the Bank of England. As soon as young Newland had attained to the required age, he was, by the interest of a Director, placed in that vast establishment as a junior clerk. This appointment was bestowed upon him in the year 1748; and from that time, until 1775, he gradually rose from station to station. On the 19th of January in the last-named year, he was raised to the very responsible office of cashier; an office in which he subsequently for very many years conducted

himself with a regularity and attention which made him not only valuable, but at the same time a very much esteemed public servant. Whatever fell within his department was so clearly and so regularly attended to, all his orders were so lucid, and all his arrangements were so simple, that no one who did business with him could fail to perceive his admirable fitness for his high office.

As a public man, Mr. Newland was a perfect pattern of industry. So devoted indeed was he to his business, that he was wont to say that he never spent his time half as pleasantly at a theatre or a party as he did at his desk, and in the performance of his duties. He was as amiable in his private life as he was eminent in his public character; and the large fortune he acquired by a long and untiring life of industry was not selfishly enjoyed,—liberality to his friends, and extensive charity to the deserving poor, being among the most striking of his characteristics.

ANTICIPATION OF PLEASURE.

THE sage remark of Sancho Panza is really of almost universal application, as regards our likings and dislikings; as regards them, there almost invariably is "much to be said on both sides."

We have frequently heard it remarked, that pleasure anticipated is scarcely ever fully realized. There is a good deal of truth in the remark. The most delightful party is almost always that which we go to without anticipating an iota more of satisfaction than usual; and after we have for long leaden months been anticipating the delight to be afforded to us by the conversation of some celebrated writer, it is a thousand to one that we find him as dull, laconic, and monotonous a person as ever white-waicoated and dined out.

So far we agree with those who say, that our anticipations are seldom completely realized; but we beg to decline accompanying those who go so far as to affirm, that therefore pleasurable anticipation is without its valuable, its importantly valuable uses.

True enough it is, that our ardent imaginations conjure up such scenes as sober every-day reality will assuredly never present to us; but we are not to suppose that even the anticipation of pleasure is not itself, in some sort, a pleasure.

We say that reality is infinitely dull, as compared to anticipative supposition. Very well; is not that, then, the best possible reason why we should gratify ourselves with the brilliancy which is within our power, to bedeck and to enliven the monotonous dullness which it is wholly out of our power by any other means to make conquest of? Because reality is to make to-morrow evening a very long, dull, tedious one, to be spent in wishing ourselves safely back in our snug study, instead of being squeezed in a well-dressed mob, who are for the most part unknown to us, and quite careless about us; is that any reason why we should make ourselves uncomfortable all day by melancholy anticipation? We really think that the happy power of being able to anticipate the best, is one of the truest means of being happy, and by no means an unimportant aid towards being good. We are ever more inclined to be charitable and polite to others when our hearts are filled with glad anticipations of our own lot. We cannot fancy a man capable of being guilty of an act of ill-nature on the eve of his wedding; or capable of refusing a favour, immediately after being blest with the restoration of his sight. Happiness is as favourable to virtue as misery is the reverse; people may occasionally quarrel though surrounded by abundance, but they slay each other for food only

when stung into insane wickedness by the uttermost extremity of famine.

Even as regards our conduct towards others, we are inclined to believe the habit of pleasurable anticipation to be of far more important service than the sterner sort of philosophers suppose. But though important even in that point of view, it is chiefly as regards ourselves that it is valuable. No one among us can go through life without having to bear his portion of disappointment, vexation, and suffering; and most men have to bear them in terrible numbers and violence. Here we seem to recognise the precise intention of nature in giving us the power of pleasurable anticipation. It is to prevent us from being crushed and borne down at the very outset; to console us for the inevitable past; to rouse us again and again to such exertions as may decide the future in our favour.

Viewed merely as to what the world most falsely and perversely persists in calling pleasure, the subject, though even then far from being unimportant, would not deserve to occupy any portion of our columns; but it is only to triflers that this subject can ever seem trifling. It takes a very wide and a truly important range of thought. Let us look at only two cases in which the want of pleasurable anticipation is a very real misfortune.

There is not upon earth a more painful spectacle than a frivolous or dissolute old man; scarcely a spectacle more delightful and inspiring than an aged man, who retains in the midst of the sage experience of age, an amiable portion of the cheerfulness and kindness of youth. The latter truly delightful character cannot possibly exist, but with the coexistence of the power of pleasurable anticipation. It is true that when the "eye becomes dim," and the "natural force is abated," man can no longer anticipate the active happiness of this world. Whatever have been his pleasures, whether worthy or unworthy, frivolous, or manly and ennobling, age can look forward to no renewal of power to participate in them. The coffin and the grave are before him; even as his forefathers now are, he speedily must be; "the cramp iron and the angel" await him; and a voice that will be heard, says, Ere long thy soul shall be required of thee. But precisely in proportion to the impropriety of frivolous and worldly love of pleasure in such a stage of life, is the propriety of cultivating a hope, "a pleasing hope, a fond desire, a longing after immortality." Without this precious, this very precious feeling, sad indeed must be the condition of an old man who has outlived his relations, and closed the eyes of the friends of his youth; with it, even he who is stricken with the many infirmities of age, has a source of pleasure far purer, consolation more precious, than all the brilliant but delusive enjoyments which this world can bestow.

In the case of splenetic and hopeless age, the evil arising from wanting the habit of pleasurable anticipation is only too great; the evil arising, at the least chiefly from it, in the case of suicide, how still more tremendous and lamentable it is! What a state of mind must that man be in who can resolve on suicide! Utterly hopeless he of course must be as to this world; alas! how can he entertain one jot of heart or hope as to the world into which he so insanely and impiously plunges, in defiance of knowing that "the Almighty hath set his canon against self-slaughter."

Taken in whatever light, treated gaily or gravely, we see in the power of pleasing anticipation a power which it behoves every one who desires to be happy and good, very sedulously to cultivate; and, with reference to all the higher and nobler uses of it, we assure our young readers that, however gay and sparkling their present lot may be, they can only preserve this precious power by being virtuous as

to conduct, and religious as to thought—religion being as far removed as possible from that gloom which infidels have attributed to it;—for “where the spirit of the Lord is, there is liberty”—and there too, and there only, is happiness as to the present, and hopefulness as to the future.

THE NEW COLONY OF SOUTH AUSTRALIA.

AN article which has lately appeared in one of our contemporaries, upon the subject of the new colony now forming on the southern shores of Australia, affords a pleasing evidence of the rapid spread of information upon a subject intimately connected with our national well-being, and one which is destined, ere long, to form one of the most important features in the history of Great Britain: we allude to an extended and enlightened plan of colonization, applied to our dependencies.

In looking at this all-important subject, without going into detail, there is one broad simple fact, convincing, we conceive, to any rational mind which it is only astonishing has never yet been mooted in any practical shape. It seems clear, that in a country thickly and perhaps over-populated, possessing at the same time vast unoccupied colonial possessions, to remove the surplus population and capital from the one to the surplus field of production of the other, is to promote a state of things which must tend to equalize, and to bring into the most flourishing condition, the resources of each; relieving one from the injurious pressure of a pauper population, and creating in the other an unlimited demand for our home produce and manufactures; guarding at the same time against the evil of removing any portion of the labour which may be necessary at home, and avoiding an injurious direction of the stream of emigration to any one particular colony. This, of course, can only be effected by the assistance of an enlightened and responsible body in England, whose time and attention may be exclusively devoted to the regulation of the supply and demand; an emigration fund being raised by the sale of waste land, to be devoted solely to this object.

In the establishment, by Parliament, of the Board of Commissioners for the colonization of South Australia, the first attempt has been made to carry into effect a national and safe mode of colonization. The rapid success of this experiment must, of course, partially depend upon fortuitous circumstances; but with ordinary advantage in the outset, a complete success may with confidence be expected.

Before, however, any definite result can be known here, it is highly probable that these same principles will be extended to all our colonies, should the recommendations contained in the report of the Commons' Committee, on the disposal of waste lands, be carried into effect, of which few persons who have read the valuable and interesting evidence given before the committee by Mr. Whitmore, Mr. Hanson, Mr. Wakefield, and Colonel Torrens, can entertain a doubt.

Whatever interest may attach to the colony of South Australia, as a whole, must be felt much more strongly in behalf of those energetic pioneers in this noble cause now engaged in carrying out these principles, and making the necessary surveys. The number of vessels already gone are eleven, carrying out upwards of nine hundred settlers; and it is highly probable that the total number of emigrants in the first year will be 1500,—as many as they can now muster at Swan River and King George's Sound, after nine years of hardships and difficulties of every kind. Two towns will be immediately formed; Adelaide, the seat of government, and Kingscote, the commercial station of the South Aus-

tralian Company. A church, the governor's residence, public offices, and a bank, are all taken out ready for immediate erection—a weekly paper established, and literary and educational societies formed.

A better proof can hardly be given of the progress of these principles in our other colonies, than is afforded by the following extract from the *Graham's Town Journal* of the 22d of June last. In the leading article of that paper, the writer, speaking of the mode of disposal of land generally in use, says,—“In founding this new colony of South Australia, the evils of improvidentially granting land, and dispersing labour, have been distinctly seen, and carefully guarded against. No project of colonization was ever undertaken with more caution and deliberation than this has been; and hence it may be profitable for us to look at the conclusions at which the projectors of that undertaking have arrived on the points in question. They are these: there are to be no gifts of land; no favoritism; no ruinous and demoralizing system of patronage, kept up by the absurd and lavish disposal of public property. All lands are to be sold, the minimum price being fixed at 12s. per acre, whilst the purchase money is to be appropriated exclusively in sending out efficient labourers; and thus in exact ratio to the disposal of waste land, will be increased the means of profitably occupying it. In a pastoral country like this, where the surface is irregular, where there is, comparatively, but little water carriage, and where communication is difficult and laborious, the minimum rate above is unquestionably too high. We merely adduce the example as a wholesome principle, subject to each modification as difference of local circumstances may render expedient. If the lands of this fine colony, which have been squandered away, had been prudently disposed of, and the proceeds employed in the improvement of the country; in facilitating the intercourse, by the improvement of roads and harbours; in the diffusion of moral and religious instruction; in the introduction of machinery, and in keeping up a supply of labour adequate to its extent and capabilities, how different would have been its condition to that sickly, rickety condition in which we now find it!”

Many settlers from Van Diemen's Land have signified their intention of joining the new colony; and so desirous do the evils of the convict system render the more enlightened among them of living in a purer state of society, that they are about voluntary to relinquish their present prosperous condition there to attain this object.

Letters have been received from Rio Janerio stating the arrival of one of the first ships at that place in June last. Much interest has been excited there, and many influential persons are about to join the settlement from thence.

Whatever the individual opinions may be upon mere matters of detail, we confess, upon broad principles, that this plan bears its own arguments with it: and although we cannot ask our readers to go at once upon the faith of our assertions, at least we may follow the course of our northern contemporaries, in urging them to watch the working of the system as a most interesting experiment, and fraught with many future advantages to the millions.

We are informed that sections of land, which were purchased from the Commissioners, last autumn, for 817., have been in some cases resold at an advance of as much as 50l.; so great is the increase of public confidence in the success of this undertaking.

SUPPLY OF WATER TO THE METROPOLIS.

We are sometimes tempted to think that the most marvellous of all the marvels of our wealthy and populous Babel,

is that which is hidden from our view,—the infinite ramification of pipes for the conveyance of water and gas. In the thirteenth century the principal supply of water to the metropolis was furnished by the River of Wells, so termed because its volume was composed of numerous springs, which united in a common level at the foot of Holborn-hill, where at that time was the Holborn-bridge.

The word Holborn is a corruption of Old Bourn, the word *bourne* meaning a stream or brook; and this brook flowed where now stands the long and populous street called Holborn. Rising a little to the west of the court called Middle-row, the Old Bourn rolled eastward as far as Holborn-bridge, where, joining the Fleet-ditch, it turned to the south, and fell into the Thames.

One of the numerous streams which assisted in the formation of the River of Wells, was the Turnmill-brook, so called because the Knights of St. John of Jerusalem made use of its power to turn some mills on their estate.

Walbrook was a stream which entered the city through the northern wall, near Little Moorgate, to the east of Old Bethlehem.

Langbourne, or the Long Brook, rose at the spot where the Aldgate pump now stands, passed through Fenchurch-street and a portion of Lombard-street, and so by Walbrook, into the Thames.

Besides these various streams, there were, both in London proper and in the suburbs, many conduits and wells; some of the latter being reputed to possess very valuable medicinal

qualities. One of them occupied the site upon which, in our day, stands Holywell-street, near St. Clement's church, in the Strand; and another, which was also called the Holywell, was situated in Shoreditch, on the spot still called by that name. The most celebrated, however, was that called Clerkenwell, *i. e.* the Well of the Clerks. It derives its name from the custom of the parish clerks of London annually assembling there for the purpose of performing a sort of religious dramas, entitled "Mysteries."

The springs of St. Agnes le Clair, situate in Finsbury-fields, were held in great repute. Just to the west of them was a large pond, which, being full of deep holes, caused the death of incautious bathers to such an extent, that it at length obtained the title of "Perilous Pond." This once dangerous piece of water has long since been levelled, and planted round with trees and flowering shrubs, and enclosed by lofty walls; suites of neat rooms for bathers, and numerous sets of corks for the use of inexperienced swimmers; and thus metamorphosed, it is, we doubt not, known to many of our readers by the really appropriate name of Peerless Pool. The spring itself, which feeds this noble piece of water, is covered by a handsome bathing-house, the bath into which the water rises being composed entirely of very pure white marble. This is at once the safest, the pleasantest, and the best frequented of all the baths in, or in the neighbourhood of, the metropolis.

Of the more modern supply of water to the metropolis, we will take occasion to speak in an early number.

RUSSIA IN ASIA.

ASIATIC RUSSIA extends from about 37° of east longitude to the eastern extremity of Asia, more than 5000 English miles. Its greatest breadth exceeds 1500 miles. The whole surface is computed at 3,000,000 square miles, with about one individual to each.

The mountainous region at the south-west extremity of Asiatic Russia has always been inhabited by rude tribes, under independent chiefs, secure in their own fastnesses, where they constantly cherish the spirit of the feudal ages; and up even to this time the government of Russia has not been able to exact more than a precarious submission, and can only levy her imposts by force of arms, and a chain of military posts.

Russia in Asia consists of two distinct parts, Siberia and Caucasus. The first is divided into two great governments—Toolsk on the west, and Irkutsk on the east. The latter includes the peninsula of Kamtschatka, besides which are the provinces of Astracan, Perm, and Orenburg.

The climate in these regions is colder than the European part of Russia under the same latitudes. The winter lasts for ten months, and the earth is frozen to a great depth; while in summer the heat is considerable, and an almost perpetual day exists during its short influence. With the name of Kamtschatka is connected the idea of one of the most desolate and inhospitable countries on the globe; its geographical situation, however, renders its climate and productions much superior to those of Siberia. Baron Steinheil, who lived several years in the land, and drew up a plan for its improvement, asserts: "From a long course of observations made during my residence in Kamtschatka, I am convinced that both the climate and soil are such that agriculture might be carried on with the most complete success."

The forests of Siberia contribute to make the air in many

places damp and unwholesome, but the eastern districts, though cold, are salubrious. Near the Caspian, the inhabitants enjoy a warm and protracted summer, though the winter is cold.

The most valuable possession of the natives of this part of Russia is the rein-deer. This singular animal is capable of enduring the most severe privations, both from cold and hunger. Its chief sustenance is moss. It supplies the place of a horse, and furnishes its master both food and clothing. The Siberian dog is also used in drawing sledges. The wild animals are numerous.

The mountains abound in granite and porphyry stone, with marbles of various kinds, and alabaster of every colour. Among these a vast quantity of gems have been found at different times. Silver, lead, and copper are also dug out of various provinces.

(To be continued.)

INJURED GENTLEMEN.

If there be any one portion of our intellectual condition of which we habitually think with greater satisfaction than we do of any other portion, it is our fervent belief in, and hope of, the moral and intellectual perfection—not of this, that, or the other portion of society, in this, that, or the other country, but of that vast whole—MANKIND. But handsomely as we are in the habit of judging of the capabilities of human nature, we are assuredly by no means prone to flattery, either with tongue or pen; and whether in conversation, or through the medium of the press, we are every now and then obliged to confess that it is quite possible to meet with very perverse and perverted humanity;

albeit that the said humanity is passable enough as to corporeal configuration, and clad in quite unexceptionable broad-cloth.

If there be any inconvenience to be anticipated from sharpening the intellect, it is this; that though the benevolence is thereby so far increased, that we look upon vice "more in sorrow than in anger," the perception and sensibility are at the same time so much heightened, that we become liable to be annoyed by *boreds*—what an expressive, though untranslatable word that is!—where a more sluggish or less carefully trained person will see every thing *coulour de rose*, and hear nothing but what to him is—

"Not harsh and crabbed,
But musical, as is Apollo's lute."

For our own especial part, we are not in the habit of allowing trifles to disturb our equanimity. The smaller singularities of society we pass quietly by; and if we perchance come across any more serious *boreds*, such as a perversion of important words—hospitality, for instance, or an offensive personality in argument, we smile, after our grave fashion, and jot down our notions thereanent to form part and parcel of a future "Guide."

There is one especial specimen of perversity that annoys us exceedingly—to wit, your ill-used gentleman. No matter where or when you meet him, no matter whom you mention to him; he has only to tell you that he has been excessively ill-used. His grievances are of all sorts and sizes; and of one or the other he is quite sure to disburthen himself for your commingled delight and edification. If no opportunity loes of property, by an of course unrighteous decree of Chancery, enable him to treat you to an eloquent diatribe against proceedings in equity, he has assuredly just cause for bitter complaints, for that Tomkins has inflicted boots of an unpardonable tightness; and Jenkins—never to be forgiven!—has made his last waistcoat too long by nearly the sixteenth of an inch! And then, all his acquaintance and friends, and still more his relations; see how they have used him! Thenés, his son, for instance—a fine young man, industrious, prudent, and clever—all that he must say for him! But you must sympathize, nevertheless, with the grief caused by the fact, that the son confesses infinite respect for a relative who has been a life-long benefactor to him, although that relative and the father are not on speaking terms.

O, poor humanity! when, oh when will you burst asunder the individually petty but conjointly tremendous bonds which hold you in moral, as the small threads of the Lilliputians held Gulliver in physical, abasement?

NECESSITY FOR STUDYING METHODICALLY.

It is no uncommon thing to hear persons complain that their progress in knowledge is very far from bearing any thing like a fair proportion to their zeal and application in study. Once learning to believe this, it almost inevitably follows that the discontent as to the progress, produces either disgust or indifference as to the process; and the mere possibility of this occurring in a considerable number of cases, is sufficient to justify the devotion of a brief space to the task of putting the error aside.

Industry and zeal are only valuable when properly directed. If all mankind were to devote their strength during twenty hours per diem in alternately digging holes in the earth and filling them up again, all the strength and industry thus misdirected would be no more profitable at

the year's end than the year-long sleep of all mankind would be.

The truth of what is said above is so obvious, that no one will for a moment dream of denying or questioning it; and a very little comparison will suffice to show that what is true of the strength and industry of the body, is no jot or tittle less true of the strength and industry of the mind.

In good truth, misdirected reading is even more unprofitable than misdirected bodily labour. The latter, indeed, produces nothing; but the former is active for evil, though perfectly passive for good. He who reads without method, cannot possibly consolidate his knowledge. Dipping; now here, now there, he picks up myriads of facts, but they are all unconnected. There is no homogeneousness in his knowledge; what he knows of one branch of learning is not of the slightest aid to him when he is striving to make himself master of any other branch. Nor is this all: he never feels sure of his facts; he only knows that such an author asserts this or that;—he has not the power of testing the correctness of the assertion. Errors, long since exploded, are to his dull vision truths radiant and mighty; truths known two thousand years ago are gravely enunciated by him as recent discoveries. His mind is a maze; and if a truth does happen to get in there, it wanders about perplexed by many obliquities. So far is the student of this kind from being benefited by his reading, that, in fact, the more he reads, the worse is his case; it is only adding to the ill-assorted and unproductive store of the lumber-room.

If a person of this sort speak of natural history, you may be sure that he will quote Goldsmith; if of fiction, he knows not Scott or Bulwer, but is hand and glove with the maudlin trash of Leadenhall-street. He has loads of bits of knowledge, but they are of no use to him, nor in any way connected with each other; and he is no more entitled to be called a well read man than he would be to be called a wit, in virtue of having committed to memory all the most pointless and venerable "Joes" of the most trumpery jest-book.

Besides this mere desultoriness of reading, there is a perverseness which is very mischievous. Your perverse reader is generally a most industrious waster of his time; his eyes are sunken, and his cheeks pale and hollow, from the perseverance with which he has pursued studies as utterly useless to himself as uninteresting to all the world beside. Exploded errors he is extremely partial to: if they be treated of in obsolete phraseology, and a villanously harsh and uncouth style, his satisfaction absolutely knows no bounds. The philosopher's stone and necromancy are his especial pets; and next to them he ranks casuistical disputations. He is exceedingly familiar with Duns Scotus; speak to him of Walter Scott or Professor Wilson, of Rob Roy, or the last "Metaphysician" in Blackwood, you will at once perceive that you are suspected of a turn for mystification.

If all mankind could be induced not only to read, but also to think, many of the very worst errors and consequent evils which exist in such detrimental abundance would speedily take their departure, to return no more; but, unhappily, a very large section of the reading world is engaged in reading to no useful purpose, and, we fear, another and much larger section in reading to no purpose at all.

We close this paper with an earnest and emphatic exhortation to our readers, to make it a rule, while reading, to argue, as it were, with their author; and never to lay down a volume, when done with it, without rigorously examining their minds as to the result of their reading. We know of no better security than this against getting into the habit of reading frivolous or other works, without actual and

negligible benefit. One year spent in reading of this sort would do more to make a masculine and practical scholar than a whole life-time of the misdirected labour—the busy idleness, against which we have endeavoured to afford warning.

MAGNANIMOUS CANDOUR OF LORD HOLT.

EVERY one is willing enough to bear his eulogistic testimony to the great usefulness of personal courage; but few, indeed, are they who appear to have any thing like an adequate idea of the importance of moral courage. This has long seemed to us to be exceedingly unjust and unwise. Circumstances may arise, indeed, in which the possession of personal courage may be of absolutely indispensable consequence to our own or others' safety; and in case of seeing a fellow-creature maimed or killed, because we lacked the courage to advance to his aid, our misery would be only inferior to the life-long remorse of the actual manslayer. But the circumstances which render personal courage of high and real value, are few and of rare occurrence; while, on the other hand, moral courage is necessary almost every hour. A want of moral courage is almost invariably the fruitful parent of vice and folly; and it is to this lamentable want, that many a young man has owed his successive progress through vice, disgrace, desperation, crime, and death; while still more, who have not been driven so far, have passed their whole lives in contemptible absurdities.

Confession of error is one of the highest efforts of moral courage; it is also one of the most difficult to all men, but especially so to those whose high station makes the world even more censorious towards them than towards less conspicuous persons. Probably no person, thus situated, ever showed in a finer point of view his possession of moral courage, than did Lord Holt.

While a very young man, he was connected with some fellow-collegians of dissolute life. Being out with them on a journey of what he, as well as they, at that time miscalled pleasure, they were so extravagant in their mad expenditure, that they found themselves literally penniless, while still at a very considerable distance from home. In this pleasant predicament it was, after some consultation, agreed that they should separate, and each seek his fortune as he best could. Holt rode boldly forward, and on reaching a little village, rode into the yard of its little inn, and called about him with as much unconcern as though his purse had been as full as in reality it was empty.

On entering the kitchen, to see how the preparation of supper was proceeding, Holt saw a daughter of his hostess, trembling in the cold fit of an ague; and with an unpardonable levity and hypocrisy, wrote what he called a charm; at the same time assuring his "patient" and her mother that the disease would go off forthwith. Singularly enough, it chanced that the disorder had just come to a termination; and the speedy improvement in the girl's health so delighted the mother, that when, at the expiration of a week, Holt prepared to depart, she, as he had anticipated, peremptorily refused to hear any thing about receiving payment from him.

Years passed on, and the wild licentious youth had become a grave and moral man,—the flippant student had become the just and learned judge,—and the learned judge went on circuit, in the very county in which the wild student had been guilty of such an unwarrantable piece of imposture. Among the prisoners whom it was his painful duty to try, was a miserable old woman, who was charged with the

crime of witchcraft; her real offences being only age, ugliness, and poverty,—her greatest misfortune, the all but brutal ignorance of her contemporaries and compatriots.

The strongest circumstance alleged against her, was, that she had been detected in the possession and use of a charm, by which she could exert the mischievous power of afflicting her neighbours' cattle with disease and death. As this "charm" was actually produced in court, Judge Holt very naturally and properly thought it to be his duty to examine it. On removing envelope after envelope of dirty rags, secured with much pack-thread, he at length came to the nucleus of this voluminous and momentous charm, and discovered that it was nothing more or less than the piece of parchment upon which, when a penniless student, he had scribbled unintelligible nonsense to deceive an illiterate old woman. Recognising the parchment, he at the same time recalled to his memory the discreditable trick of his youth; and the whole assemblage in the court could see by his changing complexion, that he was much concerned, though no one could even conjecture how, in the innermost portion of the alleged "charm." In a few moments the learned judge recovered from his emotion, and, to his immortal credit for moral courage, thus addressed himself to the jury.—"Gentlemen, I feel bound, under the circumstances, to relate an incident of my life, which very ill suits with either my present character, or the station which I hold. To conceal it, however, would be to aggravate the folly, for which I ought to atone; to endanger innocence, and to give sanction to superstition. This bauble, which is represented to have power of life and death, is a senseless scrawl, which I wrote with my own hand, and gave to this old woman; who now, after a lapse of many years, is, on its account, charged with witchcraft."

Subsequently the judge gave all the particulars of the affair, the old woman was acquitted, and was the very last person who, in that county, was ever tried upon the about equally absurd as atrocious charge of witchcraft.

PRESERVATION OF FRUITS.

It is not even yet too late for a few words on this subject to be of service, though we regret that it did not occur to us to speak of it earlier in the season. For apples and pears we are in time even for this year, and for the more delicate and early kinds of fruit, our readers have the pleasure of being as certain as ourselves, that, however late we may be this year, we are quite sufficiently early for the year that is approaching.

When the fruit is sufficiently advanced, which is a day or two before it would be quite ripened, it must be pulled with very great care. This is the more to be attended to by the more delicate the fruit may be; the slightest pressure being sufficient to bruise some of the delicate kinds, and a bruise being quite infallibly the cause of rotteness. When carefully pulled, the fruit must be laid on a floor that is lightly covered with perfectly dry and clean straw, care being taken that they do not crowd upon each other. The windows of the apartment should be kept constantly open; a curtain or blind preventing the entrance of rain. About three days of this treatment will suffice to dry up all the moisture on the skins of the fruit in general; and in the case of strawberries, which are extremely delicate, a third of that time will be found sufficient for the purpose.

The fruit being properly dried, take common earthenware jars, and having put alternately a layer of straw and a layer

of fruit till the jar is filled, stop it up very carefully. Of strawberries not more than a pound, and of apples or pears, not more than a dozen must be put into each jar. For strawberries, apricots, and peaches, paper shredded very fine is preferable to straw. Apples, pears, peaches, and apricots, in addition to the protection afforded by the alternate layers of straw, or of shredded paper, should individually have some soft paper twisted neatly round them. When the jars are filled and tightly stopped, let the stoppers be carefully luted: either rosin or the common sealing-wax used by the blacking-makers will do for the purpose.

Grapes and strawberries treated in this manner will keep perfectly fresh for six months; the coarser and harder fruits will keep full a year.

The above directions we have abridged from the directions given above thirty years ago by a Signor Buonsegna, whose information procured him a medal from the Dublin Society. Singularly enough contrasted with the plain good sense of all the rest of his directions, is the emphatic nonsense with which he closes, to wit; "Be sure to finish your process in the last quarter of the moon!"

JEWES AT ROME UNDER PIUS VI.

WEALTH-LOVING, and therefore industrious, the Jews in all times and countries have been among the most valuable of denizens; and yet, until a comparatively recent period, there was scarcely a nation under heaven which was not guilty of the meanest and most atrocious tyranny over them. In our own country, even in the reign of the always chivalric and frequently generous Richard Cœur de Lion, the unfortunate children of Judah were treated with a heartless and sordid brutality, of which, even at this long distance of time, no right-minded man can read without feeling strongly tempted to partly hate and partly despise our common nature for the possibility of its being so far perverted, debased, and brutalized. Did the monarch, or any of his martial followers, lack means of indulging in debasing sensualities at home, or in ferocious and atrocious cruelty and rapine abroad? Be sure that the Jews, who had the reputation of being the chief among their tribe as traders and men of wealth, were arbitrarily seized upon, thrown into squalid and horrible dungeons, and subjected to the most revolting and incredible tortures, until their strength of soul gave way beneath the weakness of their agonised bodies! Yes; even the chivalric and so widely and loudly lauded Richard the Lion-hearted was base, cruel, and unprincipled enough to torture aged men and their unfortunate dependents, until his fierce and unholy lust of gold was duly slaked!

While we blush for the (thank Heaven!) obsolete tyranny which was once practised in our own land, common justice demands that we confess that the wrongs which the Jews of an older day sustained at the hands of Englishmen, are as mere trifles when compared and contrasted with the extent and number of those which were inflicted upon them by the fame-loving but most merciless and extremely unchristian Pope Pius VI.

Abodes, dress, customs, faith—all things which could annoy the Hebrew—were made the subjects of his annoyance by this magnificent but unprincipled pontiff. No Jew could ride in any equipage, save when absolutely on a journey; badges were invented by which the Judaism of the wearer would be infallibly pointed out to one of the most savage and bigoted populations which all Christendom could produce, and, as if to make a very and emphatic mockery of the charitable and humble precepts of the New Testament, the

persecution was extended so far, that the Jews were obliged, under a heavy penalty, to attend every Sabbath-day to be preached at by the most furious bigot to be found among the furious and bigoted Dominicans.

Had the cruelty of Pope Pius VI. to the Jews, who were unhappy enough to groan beneath his anti-christian despotism, originated purely in a bigoted ignorance, and in zeal overmuch, we should rather pity his error, than hold up his character to detestation. But such was not the case; he hungered and thirsted after the delusive *ignus fatuus*, Fame; he preferred what men in ignorance would marvel at, to what righteous justice and enlightened humanity would cordially but silently approve; his brilliant but useless enterprises required solid gold in no small quantity; and having, under the pretence of religious zeal, made unjust laws to affect only the Jews, he dispensed with their compliance with those laws whensoever he found it convenient to **SELL** such dispensation!

RICHARD HOOKER.

ONE of the least pleasing, and also one of the least hopeful, of the characteristics of the present age of marvellously increased spread of knowledge, is, the strong tendency which daily becomes more and more obvious, to all careful observers, to think too exclusively of the worth and wisdom of the more ancient, to the grievous neglect of those of the more modern times.

As an illustration of this sort of tendency, we know not that we can mention any thing more striking and conclusive, than the difference as to celebrity between Grecian Socrates, and English Richard Hooker. The patience, the wisdom, the all but imperturbable equanimity of the former, are within the knowledge and upon the lips of every schoolboy. The wise heathen has been heard of among all orders of men and in almost all lands, through all the ages which have elapsed since his decease; how few of even the middle orders, to say nothing of the recently educated multitude, know any thing of the character, or even of the very precious labours of the pious, the earnest, the wise, the eloquent, and charitable tempered Hooker!

He would be indeed an unpromising schoolboy of ten years of age who should prove himself ignorant of the vixen temper of Xantippe, or of the sage and enduring temper with which her perversity and violence were borne by Socrates. But who, save the higher order of students,—those who read not for mere knowledge, but for amusement,—knows or dreams aught of the fiery and malignant temper of Joan Hooker, or of the all-enduring kindness with which her husband bore with it? Socrates, indeed! Socrates himself might be forgiven, had his temper given way under the petty, carking, hourly annoyances which were so mercilessly inflicted upon, in some respects, the very first man of his time and country!

At present we only allude to the subject, in order to give utterance to our disapproval of the lamentable ignorance under which thousands labour, of the sayings and doings of some of the brightest lights of England; while both the sayings and doings, real and fictitious, of the ancient sages are—

"Familiar to men's lips as household words."

Ere we close, which we shortly mean to do, our first series of Self-Instructor in Biography, we shall give our readers some notion of the almost apostolically pious, zealous, and useful writer of the "Ecclesiastical Politie;" and should our account of the author induce only one of our numerous readers to consult the work, verily our labour will not be without its reward.

very eminent traveller and antiquary,* who visited the ruins about twenty years ago, states, that from a spot about two miles from Hedah, he could trace them for a very considerable distance into the country.

Nineveh, the mighty city so often made mention of in Scripture, was about fifty miles in circumference. It was completely surrounded by a wall a hundred feet in height; and so wide, that on its top three chariots abreast could pass. Nimrod, whom some authors deem to have been the father of Belus, is by other authors considered to have been, in fact, that same prince: he is said to have reigned over Babylon 114 years. His son, that is to say Belus, removed his seat of empire from Babylon to Nineveh. This prince, who married the celebrated Semiramis, greatly extended and adorned his chosen capital. At his death, Semiramis succeeded him. She is reported to have kept up an army of 600,000 infantry, independent of numerous war-chariots and corps of cavalry. After this warlike queen had subdued a considerable portion of Asia, she was slain in India, B.C. 1959. Her son and successor seems to have inherited her martial spirit and desires. He subdued the Caspians, Bactrians, and Arians.

From the time of Ninyas to that of Sardanapalus, there is nothing remarkable to be mentioned of this empire. This truly contemptible prince was as effeminate and luxurious as most of his predecessors had been warlike and hardy. His habits were the most pitifully sensual that can be imagined; and his palace became a scene of continual dissipation and idleness. Arbaces, who was his lieutenant in Media, was to the full as brave and manly as his royal and worthless master was the reverse. Sardanapalus having for a considerable time secluded himself entirely from the sight of his subjects, and it being reported that his seclusion was spent in pursuits unworthy of either a king or a man, Arbaces resolved to know the truth of the matter. For this purpose he proceeded to the palace; and having made his way to the royal apartments, he there, to his unutterable disgust and indignation, found the effeminate and heartless king attired in the female garb, and engaged in the truly manly and warlike operation of—spinning!

Utterly alienated from his unworthy king by this sight, he forthwith associated himself with another warlike officer, Belicilius, the governor of Babylon, for the purpose of deposing Sardanapalus. Joining their troops, the two chieftains besieged Nineveh, and soon reduced the king to such extremities, that he resolved upon destroying himself and all the treasures he possessed. He accordingly caused a funeral pile to be erected of the most costly materials, and bue d his wives and himself to death upon it. The treasures consumed in this suicidal and murderous arson are said to have amounted in value to several hundreds of millions of sterling pounds!

[By way of parenthesis, we beg to direct our readers' attention to Lord Byron's "Sardanapalus," one of the finest *closet* tragedies ever written.] Arbaces and the Medes now settled themselves at Nineveh, and the new dynasty restored the glory of Assyria, which, under the heartless and contemptible Sardanapalus, had suffered not a little.

The most distinguished monarchs of the second Assyrian empire were Arbaces, Shalmaneser, Sennacherib, and Esarhaddon. The second of these was an exceedingly politic as well as warlike prince. He it is who is mentioned in Scripture as having dispersed the ten tribes of Israel, and carried Manasseh, king of Judah, into captivity.

(To be continued.)

* Claudius Rich, Esq., who was very absurdly and unjustly satirized by Lord Byron.

CONTENT.

A WASPISH, splenetic, and discontented turn is a strong indication of a very bad heart, or a very weak and ill-regulated mind. People who are unfortunate enough to be afflicted with such a turn are a positive nuisance to society and to themselves. The mere sight or knowledge of another's prosperity are gall and wormwood to them; and their bitter and uncharitable remarks draw down upon them the dislike and the avoidance of all who hear them, and whose healthier feeling will not allow them to fall in with sentiments at once so unjust and so degrading.

To be contented is absolutely indispensable to being either good or happy; but the word content, like so many other words that are on every one's lips and in every day use, is exceedingly liable to be misunderstood and misused. Content may be carried to an extent injurious both to the individual and to society at large; so carried, it degenerates into an effeminate indolence, unambitious of all well-doing, and lapped in an intense selfishness. But thus viewing the word content, the feeling is a real and pernicious vice. No man, rich or poor, high or low, ought to be contented in this sense of the word. We are not sent into this world to gaze about us in sybarite ease; our duties to society and to ourselves—for an unemployed man is ever an uncomfortable man—require, even if we are at ease as to worldly circumstances, *not* to be content to leave the world no better at our death than it was at our birth.

If, even on the part of the wealthy, it is a duty to do something towards making society better, happier, wealthier or wiser than they found it, doubly is it the duty of the poor man to do so. If mere existence, the mere supply of the animal wants, were to *content* a community, the world would very speedily relapse into its primeval barbarism. It is the desire to improve, the discontent, in the confined meaning of the word, that has blessed society with all that marvellous store of wealth which it contains beyond the mere spontaneous gifts of nature; and he who will compare the state of a civilized country like England or France, with that of the Esquimaux, will be obliged to confess that if our ancestors had been contented with their original barbarism, we should have exceedingly small reason to be contented with their conduct. But in addition to all considerations connected with wealth; in addition to the obvious fact, that if a poor man be contented with the bare subsistence from day to day, he is everlastingly liable, from illness and other causes, to die of actual want, or meanly to become a burthen and a charge upon that society, which he, contented soul! has made no efforts towards benefiting; there is another and a no less important point.

The mere accumulation of a large property is a kindness conferred upon society. He who has accumulated a million of money must, in a variety of ways, have caused twenty times that value to have been either created or circulated; in fact, circulation is itself in some sort identical with creation, as we pointed out in some remarks we made in a former number on Sir Walter Scott, viewed in the light of a productive labourer.

There is yet another reason why a poor man is especially called upon *not* to be *contented*, in the sense in which we are at present considering the word. Suppose him contented that his own and his family's subsistence should be of the scantiest and coarsest description, and held upon the very precarious tenure of his uninterrupted health and employment; has he the feelings of a man, and would he desire to be, during his whole life, destitute of the means of acting the part of the good Samaritan to the sick and destitute?

wayfarer; to hear the moan and look upon the tears of the widow, whose famished children demand the bread she cannot give to them, and he himself so little removed from pale-faced want as to be unable to relieve the sufferers? Base, indeed, were the man who could thus reason and thus feel; and very important it is that it should be universally known and acted upon, that all the wealth, and very much of the welfare and happiness of society, have arisen and are maintained owing to the eager desire of the individuals of that mighty and struggling mass to improve their individual condition.

DUELLING.

If we are exceedingly annoyed at hearing the censure of phrases, it will very easily be credited that we are in no wise inclined to pass by without censuring such an at once absurd and brutal practice as that to which our present article has reference.

Daily,—it may almost without exaggeration be affirmed,—do instances occur of men holding themselves, and who are held by others, to be intelligent and respectable, meeting to decide some trumpery quarrel by dint of an appeal to deadly weapons. We are quite in agreement with all writers, whether ancient or modern, whether in ponderous folio or in newspaper paragraph, who censure the equally brutal and silly practice of duelling; but we must take leave to observe, that we think that all those writers, so far as our experience extends, are a little too exclusive and partial in the bestowal of their censure.

True enough it most undoubtedly is that the actual persons who are engaged in the trumpery transactions which are facetiously misnamed “affairs of honour,” are most undoubtedly guilty of a very grave offence alike against divine and human law, against good feeling and against good sense. True enough it is that no man who is engaged, whether as a principal or as a second, in one of these partly brutal and partly silly transactions, can be by any sane and honest man pronounced otherwise than guilty of the grave offence above named; but are THEY the *only* persons to whom we ought to extend our censure? Are we to look only at the *consequence*, and to leave out of our sight the *cause*? Are we to reserve all our virtuous indignation for the few individuals, and to pass quite coolly and quite unconcernedly by the vice of the whole community?

It may, perhaps, be objected to us that we are speaking unfairly; that, in fact, SOCIETY has really and truly nothing to do with the matter. But whosoever shall object this against us, will object it wrongfully. How does the matter really stand? It is SOCIETY which not merely *sanctions*, but, in point of fact, *COMPELS* the existence of this truly disgraceful and disgusting practice. Excepting a military man of high and established reputation, who among us can safely bid defiance to the withering effect of being branded with the awful name of “Coward?” It is of no avail to the person thus situated, that the ruffian who seeks to involve him in a breach of both human and divine law is in every point of view utterly unworthy of being believed; that his character is so bad that mere contact with him is itself an almost insurmountable obstacle to the preservation of even a relic of reputation;—“Coward!” shouts the ruffian, and “Coward!” tacitly but terribly re-echoes society. He must be, indeed, a stout-hearted man who can coolly resolve to be put under the ban of society, and to allow his family, the wife of his bosom, the young children who have to perpetuate his name, to suffer equally with himself under the

terrible sentence of SOCIAL CONTEMPT. Here it is that we find society to blame. The ruffian, upon the mere *swagger* of personal courage, is allowed to bully a more respectable man into a disgraceful personal conflict, not merely by his own innate and confirmed blackguardism, but *upon pain of incurring the contempt of society*. Shame upon society for thus allowing its members to be goaded, almost irresistibly goaded, into a breach of its laws, and of the law of God! It is absurd, it is mere and very Pharisaical cant, to censure the acts of the individual duellist, while sanctioning the brutally unjust general principle of duelling. It is society, the leading, most powerful and most influential members of society, who ought to be blamed for every individual case of duelling; it is society, as consisting of such persons, that is concerned in putting down this horrible, and yet very paltry practice. Pugilism, cock-fighting, bear and bull-baiting—all these degrading practices are put down by the good sense of society; and there is nothing wanted but the *will* on the part of men of rank and influence, to put down the infinitely more disgraceful, because infinitely more wicked and inhuman practice of DUELLING.

WHAT IS A CENTURY?

WHEN the learned do take it in their heads to be absurd, they are far from being sparing of their efforts. If we needed any proof of that fact, we should find it in the fact of the question which stands at the head of this article not only having been asked, but very fiercely disputed upon by really accomplished scholars and able writers.

Some of our readers will, perhaps, suppose that *centum*, being well known to mean a hundred,—and from *centum* the word century, meaning one hundred years,—the question must be merely put in a jocular way, and without the slightest reference to actual and serious chronologic doubts. Such, however, we can very gravely assure our readers is not the case.

Reckoning, as we do, from the year of our Lord, we reckon that the present century commenced on the first day of January, in the year 1801; we consider that 1799 years can by no means be called eighteen complete centuries; and that until the eighteenth century was completed, it was just perfectly absurd to date on any given day and month of the first year of the nineteenth. But such was by no means the light in which the matter appeared to very many very able writers. Our readers will probably be not a little astonished to learn that Hume and Robertson are on the one side, and that Playfair, Whiston, Ferguson, Blair and Lalande,* are on the other!

All the difference, error, and disputation, which have taken place upon this seemingly so simple subject, have arisen from neither more nor less than a sophistication of a truth; and as the sophistication is curious enough, we will endeavour to explain it to the satisfaction of our readers.

There are two modes of reckoning, the cardinal method, and the ordinal method.

By the former, the numbers terminate the space they refer to; they cannot be used until the space they refer to be past. By the latter, contrariwise, they commence the space to which they refer, and consequently may be used during all that space.

* We must remark, by the way, that Lalande recanted his opinions; and that Playfair, though advocating one side, has, in his *Chronology of Events*, acted upon the other.

Having compared the cardinal and ordinal methods of enumerating, our readers will be kind enough to observe, that counting ten years,* the cardinal method gives the first place on the left of the line of enumeration, not to the figure representing one, but to a cipher. Thus reckoning cardinally, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11; but, reckoning ordinally, we must write — 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

By the former method the name of the tenth year is, in fact, given to the eleventh; and if that be not an obvious absurdity, we really know not where to look for one. The advocates of the cardinal way of reckoning assume that the first century, was not a century till after it was passed, because it was not a century (*i. e.* a complete hundred years,) at any period of its passing. The truth and the sophism are here face to face. There is the confusion between complete and past, between the end of the instant that ends the first hour, and the beginning of the instant that commences the second hour.

Here, it is very evident, is the source of the error; but the absurdity of the error by no means ends here.

The century is a mere arbitrary division of time, for the convenience of referring events intelligibly to their place in the time that has past since the creation, or since any point in that time. The word, in short, has in this case no real and necessary connexion with the thing. Seed time and harvest would come as usual, if we were to cut up our centuries into decades, and call them frying-pans. But a number is not to be thus treated; it is not because the century, as a mere name, is arbitrary, that therefore a hundred may mean two hundred; a hundred might have been originally, for aught of real effect, just as well called a humming-top, and *vice versa*; but what was once merely arbitrary, custom and consent, the "*jus et norma loquendi*," have made significant and unconvertible.

These things being duly considered, the cardinal method of reckoning time has not a shadow of foundation in common sense; but its advocates are so far from seeing this, that they quite coolly retort, "If you say that a hundred can be taken for no more than a hundred, how, on the other hand, can you make it out to be less than a hundred, which you do in calling this the nineteenth century, though you are now writing on the eighteenth day of October, in the thirty-sixth year of the century, be its name what it may?"

At first sight the retort looks well enough, but its logic is leaky—it will hold no water; to speak more plainly, the retort is founded on a blunder.

If intending to go to any particular place as early as possible, and yet feeling uncertain as to the day upon which our engagements will allow of our doing so, we say, it being then only Thursday, "We'll call this week," are we for a moment so absurd as to say that the next Sunday is past? We know that, with certain exceptions, the people of this country mean by a week that portion of time which will elapse between one o'clock on Monday morning and twelve o'clock on the next succeeding Saturday night; and this being the case, we, in saying this week, do not assume the week to be completed, but only say, We'll call some time in the week of which this present time is part and parcel.

Nay, as simplicity is a great aid to lucidness, let us descend still farther. Are we to say that we did that on Tuesday last which, in fact, we did on Monday last?

According to our friends the cardinal reckoners we ought, for the twenty-four hours commonly called Monday were not *past* until the commencement of Tuesday; and if the eighteenth century ought not to be spoken of until the commencement of the nineteenth, neither ought Monday to be spoken of audibly or otherwise until Tuesday morning!

In conclusion, we beg to remark upon another error in this truly absurd disputation. In using the word century to denote divisions of time, including a hundred of those subdivisions which we call years, and in speaking of the "century" during any time between the first of January and the thirty-first of December, we are not guilty of the supposed solecism of speaking of that as being past which, in fact, is only passing; we call the present the nineteenth century, when speaking in general terms, because we know that the eighteenth century is completed, and the nineteenth is not, and that, consequently, nothing can prevent this century, when completed, from being the nineteenth. And for all more particular purposes, do we not speak of the present year as the year 1836? *i. e.* the thirty-sixth successive hundredth part of that century which, when completed, will be, if common-sense be at all regarded, called and known as the nineteenth century.

EMULATION.

MANY writers, but more especially some who have written upon the subject of education, have, as it seems to us, formed a very imperfect and mistaken estimate of emulation. They have spoken of it as being in some measure akin to envy; as being, at all events, the probable parent of that truly base and miserable passion.

Nothing can be more mistaken and mischievous than this notion, when taken as a rule in an educational system. Excluding emulation from among the motives to improve, ment, the tutor voluntarily gives up one of the most powerful of the means which nature has put into his hands for well and successfully training the young mind; and in proportion as he loses on this score, he must either fall short in the fulfilment of his arduous task, or perform it by appealing to motives infinitely inferior to that which he so contemptuously has dismissed.

Emulation is widely different from envy in this, that it has not a particle of malignity; nay, to speak affirmatively instead of merely negatively, that it can coexist with the most glowing admiration of the great or good deeds it would fain imitate or excel, and with the sincerest and most respectful feeling of friendship for him whose conduct has warmed it into life.

That this is the case, it would be perfectly puerile to argue; for the experience of all history, whether ancient or modern, whether general or particular, abundantly proves the fact.

How different from this noble feeling, from this feeling productive of so many glorious and of so many useful deeds, is pale-faced and self-torturing envy! Let Hannibal emulating his country's defenders, be compared to the dark, fierce, unsparing, greedy, and murderous Catiline, envying the prosperity he had voluntarily forfeited in the pursuit of his base pleasures. After this comparison is made, (and very many similar ones might be suggested,) we really think that no one, having, as we are sure that all respectable tutors have, a real and lively desire for the utmost possible improvement of his pupils, will ever again either think or speak of discarding emulation from among the number of his legitimate means to that most desirable end.

* And of course the same method will show the same as to centuries as it does to tens of years.

EGYPT, NUBIA, AND ABYSSINIA.

THE boundaries of Egypt commence on the south, about $23^{\circ} 45'$ of north latitude, and terminate at $31^{\circ} 27'$, being in length about 500 miles from south to north, and some parts of it 250 in breadth. The chief river in the country is the Nile, the origin of which has caused much controversy, but has never been correctly ascertained. Its climate is generally warm, and at certain seasons the heat is intolerable; rain seldom falls, but the dews are copious, and irrigation is produced by the periodical overflow of the Nile.

Egypt abounds in antiquities. The paintings in the tombs of Thebes have wonderfully preserved their colours, and, in a line with Pharos, without the walls of Alexandria, is the magnificent Pillar of Pompey: its height is ninety feet. The Pyramids of Egypt are also objects of great curiosity; they are composed of stones shaped in the form of prisms, and within them are various passages and chambers.

The present inhabitants of Egypt consist of Copts, or original occupiers of the country, Beduine Arabs, Mamelukes, Europeans, Musselmans, and Jews; of whom it is computed there are 2,500,000 souls. The arts of agriculture are in an extremely low state, and yet from its fertility Egypt has often afforded ample supplies to other countries. The government, as well as the condition of its people, are unfriendly to great exertions either of body or mind, and consequently the manufactures of the country are few and inconsiderable. It produces an abundance of salt, which obtains a ready and extensive sale. The polishing of flints and precious stones is a considerable business in Egypt, but is chiefly performed by Jews; and the Copts are excellent merchants, clerks, and accountants. The manufacture of glass of an inferior kind also gives employment to a portion of the inhabitants.

Among all the ancient nations which have been distinguished in history, none is more worthy of our notice than the kingdom of Egypt. If not the birth-place, it was the early protector of the sciences, and cherished every species of knowledge which was known or cultivated in remote periods. It was the principal source from which the Grecians derived their knowledge, and, after all its windings and enlargements, we may still trace the stream of our knowledge to the banks of the Nile.

Every ancient nation lays claim to a higher origin than legitimate history can sanction; and Egypt extends its claims to a period entirely fabulous. The first kings were pastoral ones, who must have been cruel and severe, as their memory was detested; for when Jacob and his sons went down into Egypt, a shepherd was "an abomination to the Egyptians." Osymonidas was the first ruler whose history approaches probability. He was succeeded by Moeris, Sesostris, Rhampsinitus, and various other monarchs, who reigned up to the year 636, B. C., when the empire was divided into twelve governments, called a dodecarchy. With Psammeticus, Necho, Apries, and Amasis, ended the ancient race of Egyptian kings.

The Persian usurper Cambyses proved a detested tyrant to the Egyptians; but Aryandes, to whom the former committed the government on his death-bed, was a mild and clement ruler. It was after the enfeebled state in which the empire was left by Coddomanus, surnamed Darius, that Alexander the Great, during his march after the conquests of Tyre and Sidon, was received in Egypt rather as a friend than a conqueror. He founded the city of Alexandria as a commercial station; and at his death carried with him the regret and affections of the Egyptian people.

In the year 368, Ptolemy Soter became sovereign of

Egypt, who added Palestine, Syria, and Phœnicia, to his dominions. This prince, as well as being a skilful and intrepid general, was also a literary character. He wrote the Life of Alexander the Great, which was lost amid the ravages of time; he founded a college, which became the abode of learned men; and formed a library to assist the cultivation of science. Eleven other princes bearing the same name, and descendants of this illustrious monarch, successively filled the throne. Forty-seven years before Christ, Cleopatra became sovereign of the empire, at a time when the affairs of the nation were in a state of great distraction; and soon after Julius Cæsar pursued Pompey from the battle of Pharsalia into Egypt, where the former continued with the professed intention of settling its affairs, but for the real purpose of carrying on an amour with the queen. After his murder in the senate of Rome, and the victory of Marc Antony over Brutus and Cassius, at Philippi, the conqueror viewing himself as master of Rome, travelled into Syria, and having arrived at Tarsus, commanded Cleopatra to leave Egypt, and appear before him; the meeting was conducted with a splendour beyond example, and their feastings were numerous and extravagant. Like Cæsar, Antony was captivated with the fascinations of the licentious princess, and he divorced his wife Octavia, the most virtuous of women, to remove the jealousy, and enjoy the favours of Cleopatra.

Enervated and detained from home by effeminate pleasures, Antony neglected to make his power over the Roman people sufficiently secure, and Octavianus appeared in arms against him. A naval battle was hazarded at Actium; Antony's fleet was vanquished, and he fled into Alexandria, while Cleopatra retired to a sepulchral monument. Believing a report that she had put an end to her life, and seeing himself on the point of falling into the hands of his inveterate foe, Antony fell upon his own sword. But not having instantly died, and finding that Cleopatra was still alive, he was conveyed to her retreat, and after an affecting farewell, expired. Cleopatra then fell into the hands of Octavianus, on whom she essayed all those arts and fascinations she had so successfully employed on her former conquerors, Cæsar and Antony, but the heart of Octavianus was proof against her charms, and in despair she procured an asp, by the sting of which she died. With her ended the dynasty of the Ptolemies, which had lasted about 294 years, and Egypt was converted into a province of Rome, remaining so until the fall of that city.

In the year 634 Egypt fell into the hands of the Saracens, under Amru, who was appointed governor, and the famous library of Ptolemy Soter at Alexandria was destroyed. The kingdom remained a province of the Persian empire until the year 1171, when Saladin revolted and obtained the title and power of Sultan of Egypt. During the sovereignty of this daring ruler, a third crusade was determined on in Europe; and the Emperor of Germany, Philip II. of France, and Richard I. of England, having arrived before the city of Ptolemaus, laid siege to it, but Saladin capitulated, and the garrison were allowed to march out with the honours of war, and all the European potentates returned except Richard Cœur de Lion, who took possession of the city of Askalon. Upon this event Saladin hastened to Jerusalem, whither Richard followed him, and held him in close siege, but when the hour arrived that the city was to be delivered up, the besieging army retreated, and the enterprise was abandoned. In 1193, Saladin died, aged 55, having reigned over Egypt twenty-four years. When he usurped the sovereignty, he durst not entrust himself to the national troops, but placed

about his throne a powerful body of slaves, with whom originated the Mamelukes. Successive monarchs increased the power of these attendants by new privileges, and at length they obtained such influence as to possess in reality the disposal of the sovereignty. The Mameluke dynasty commenced with Ibeg, in 1277, and lasted 128 years, when Egypt became a Turkish province.

In 1798, the republican armies of France, after having trampled on the independence of three-fourths of Europe, commenced an expedition into Egypt. The naval force was entrusted to the command of Admiral Brueys, and the army was headed by Napoleon Buonaparte; while on the part of England, Admiral Nelson was appointed to the command of a squadron to watch the motions of the French fleet. The famous battle of the Nile was the consequence, when Nelson gained a complete victory, with eleven ships of the line, and one of fifty guns, against thirteen ships of the enemy's line, and other smaller craft.

On the 24th of January, 1800, a treaty was entered into, by which the French were bound to leave Egypt; with the terms of which, however, they did not think proper to comply, and the court of London planned a secret expedition, which eventually caused the French to abandon the country.

During the commotions occasioned by the Europeans entering Egypt, the court of Constantinople appointed Ali Pacha to the command of an army, of which he took advantage, by usurping the power of Egypt, but in February 1822, he was killed in his own seraglio, by a part of an army the Sultan of Turkey had sent to besiege him.

In a succeeding article we shall proceed with details of Nubia and Abyssinia.

CHARACTER OF THE HINDOOS.

IN the course of our labours in this work, we have frequently had occasion to remark on the extremely mischievous tendency of what may be most properly described as *routine* writing,—the mere repetition of other people's ideas, without knowledge or even anxiety as to their correctness. A new instance of this mischievous tendency might be produced every day; and it really is wonderful that some of the original and powerful writers who serve and elevate their country's literature in the higher order of the critical journals, do not take upon themselves the duty of pointing out the injury which is done by the continual repetition, in books intended for the young, errors that have long since been exploded among all scholars and men of science. Gladly should we ourselves undertake a task so truly useful, but our limits will not allow of our even attempting it. All that we can do in the matter is, to correct from time to time an error, whether of fact or of reasoning. One of the numerous errors into which generations after generations have been written by successive authors we pointed out in our remarks upon the much talked-of "generosity of the lion." Another is the characterising nations as to temper and disposition, which, in very many cases, is not much more correct than it would be to say that all the English have flaxen hair, and that all the Spanish are six feet high.

The patience and the industry of the Hindoos are described in the warmest terms by numerous writers; though the former has been a main cause of preventing them from making themselves free, and though the latter "fact" is in direct opposition to the undeniable truth, that, excepting cottons, Cashmere shawls, and silk handkerchiefs, the exportation of goods from Hindostan to Europe is so petty as scarcely to deserve mention.

The "patience" that has been so highly and so often lauded, would be far more correctly termed indolence: enervated partly by his voluptuous climate, and partly by his superstitions, the Hindoo has ever been the prey to bold and unprincipled invaders. This same indolence, as it seems to us, has been a main cause of the perpetuation of the numerous puerilities of the Hindoo's superstition. To examine and compare requires a masculine character such as the Hindoo is very rarely found to possess; and, accordingly, notwithstanding all the mischievous consequences of the division of castes, and of the multitude of days devoted to absurd ceremonials, these evils are preserved not merely passively, but with an actual affection.

It is to the indolence of the Hindoo, also, that we are inclined to attribute his singular temperance and seeming carelessness about accommodations which the poorest European peasant would deem quite indispensable to his comfortable existence.

Not only in their commerce, but in the arts also the Hindoos show great indolence. It is well known to all who have resided among them, that though the price of labour is extremely low as compared to the price of labour in England, work would actually be done cheaper by an English artizan than by a Hindoo, from the much greater time the latter would require, especially if he is not sharply watched and rated by his employer.

In the sciences they are as backward as they are slow in the arts; and, as if to set aside all doubts as to their being intensely idle, their favourite remark, often quoted, from one of their most esteemed writers, is substantially this;—that, to sit is better than to stand, to lie down than to sit, to sleep than to remain awake; and to die still better than all the rest.

Denying the industry of the Hindoos, and attributing any thing rather than a good effect to their patience, we cannot refrain from saying, that in other parts of their character, of which less mention has been made, we see infinite reason for admiring them. The love of children for their parents is no where more intensely felt, or more beautifully exhibited than in Hindostan, where it is by no means an uncommon circumstance for the former to deny themselves a sufficiency of the commonest necessities of life rather than allow want to approach the dwellings of the latter.

Received as a whole, the character of the Hindoos is to be rendered faulty, where we see faults to censure in it, chiefly through the influence of their mischievous religious and political regulations; some portions of which are such that it would be impossible for them to fail in deteriorating character.

THE SENSES.

OF the five senses, though all are useful, there is a striking difference in their degree of usefulness, and consequently a wide difference in the effect of their respective deprivation. The sense of touch is exceedingly valuable, and it is very rarely lost; the sense of smelling, on the contrary, though useful, is not of such vital importance; and many people possess it in only a very inferior degree, while some are absolutely destitute of it.

Tasting is a more important sense than smelling, and, like the sense of touch, is rarely if ever lost during life, though it unfortunately is only too often depraved and vitiated by the luxurious habits in which some people are so absurdly and so injuriously prone to indulge themselves.

Of all the senses, the most important and the most precious

are the sight and hearing; and of all the wonders of the human formation, true as it is of the whole of that formation that we are fearfully and wonderfully made, the organs of those senses are perhaps the most truly wonderful for their exquisite delicacy, and for the no less exquisite skill of the adaptation of every part to aid in conducing to the purpose of the whole assemblage. In the two able works from the pen of Mr. Stevenson, to which we recently had occasion to refer, there is an abundance of truly curious and useful information upon the structure of both organs. From those works, and from other important authorities upon the subject, we shall at some future time give a detailed account of the anatomy of the eye and ear, in such wise as to convey a lucid account of our meaning without bewildering our readers with hard technical terms. In the mean time we assure them, that had they any thing like an adequate knowledge of the extreme sensibility and delicacy of those organs, every one, but especially heedless youth, would be inclined to be more careful and anxious about even the chance of injuring, than even old people actually are.

ARAB ROBBERS.

THE admirers of what are called the virtues of savage life are exceedingly eulogistic of the hospitality of the Arabs. All that is said on this point *may* be quite true, but we confess that we are somewhat prone to doubt all very strong statements on any one point of national character under any circumstances; and we very naturally feel our doubt increased, when we see some point of an opposite and less creditable description either wholly past over, or, at best, only very cursorily touched upon. When it is so loudly told to us that the Arabs are distinguished for their surpassing hospitality, it would be nothing more than merely fair to add, that they are also unsurpassed in the art and mystery of thieving. It is scarcely possible to prevent these adroit thieves from succeeding in their furtive endeavours. From a camel to a pearl necklace, from a ton weight to half an ounce, no matter what quantity or what weight the desired plunder may be, it is with them all the same. If any one can possibly realize the vulgar English adage, which says, "all's fish that comes to the net," assuredly that elegant extract is realized by the thieves of Araby.

They consider plundering a science, and they have various strategy to answer for all sorts of different occasions. If the camels of some travelling band be the quarry aimed at by our hospitable brigands, their proceedings are usually as follows. Mounted on strong and fleet camels, two of the robbers riding on each camel, and provided for the nonce with a small quantity of flour, salt, and water, the expedition contrives its march so as to near the camp of its intended victims at the dead of the night. The main body halts at a short distance, and three of the most daring of the adventurers make their way to the spot where the camels are tethered. As the watch dogs become alarmed, one of the robbers entices them to pursue him, and skilfully makes them abandon their charge; allowing them every now and then to get near him, but never so near as to render the proximity dangerous to his person. In the mean time, a second adventurer has taken his stand by the door of the tent, with an uplifted bludgeon, which would not fail to give the *coup de grace* to any one of the inmates who should be impertinent enough to suppose the barking of the watch dogs to indicate the proximity of thieves; and the third, thus secured against interruption from either brute or biped, unfastens

the legs of the camels, and drives them towards the spot where the main body of his friends is awaiting the issue of his bold adventure.

So expert are these Arab robbers in their nefarious profession, that they are very rarely captured. Sometimes, however, they are unlucky enough to be siezed. In this case the captor knocks down his captive with the utmost celerity, and beats him with a club, until he renounces the *dakheil*, or right to put himself under the protection of a third person, by touching or even by spitting upon him; a right which unless thus renounced—renounced, though, in obedience to the *argumentum ad bacculinum*, is held sacred even by the fiercest. As his claim to make use of this right is renounced only for the day of his capture, the prisoner is tied ankle to ankle, and wrist to wrist, buried up to his chin in a deep hole, and his head covered over with sacks, only sufficient room being left for him to breathe through. Even under these circumstances some prisoners have been known to effect their escape, while others have remained in this comfortable condition for months rather than pay what they have deemed an extortionate ransom.

USE OF TIME.

IT was well remarked by some wit, whose name we do not just now recollect, that a person who was a late riser lost an hour in the morning, and then ran after it all day without catching it. This is really the case; and the increased hurry and anxiety are not the only ill consequences, for they cause the business to be done less effectually, as well as less pleasantly.

Early hours, and a regular distribution of the time into portions, devoted to the various tasks that have to be performed, are absolutely indispensable to our performing those tasks, either with credit to ourselves, or with satisfaction. There should be no fussy and nervous bustling if we wish to do our business well; just as if we wish speedily to go over a certain distance of ground, it would be extremely injudicious to rise a yard from the ground at every step.

One may see some men quietly, and without either the appearance or the reality of distress, will do twice the business in a day that other men harass themselves and all who are about them in doing; and this very desirable ease and pleasure arises mainly from early hours of rising, and a judicious apportionment of time to tasks. A thorough man of business should not be up an hour ere he have mentally laid down the plan of his entire day's proceedings; and this plan, once laid down, should not be in the minutest point departed from in the absence of some very cogent reason.

Upon a due economy of time, we confess that we lay much greater stress than it appears to us to be at all usual to; and we entreat our readers, and more especially the more juvenile portion of them, to lose not a day in commencing the formation of a regular habit. That is in this case, as in many other cases, the ground requisite. A man who has for years been in the habit of rising at five in the morning, feels no more difficulty in rising at that hour, on any particular day, than a more indolent man does in dragging himself feebly and reluctantly from his bed at half an hour after noon. What bad habit has done for the one, good habit has done for the other; and a habit which is conducive to health, prosperity, and good reputation, ought surely to be the ambition of every young man who wishes to give satisfaction either to society or to his own feelings.

NAPOLEON BUONAPARTE.

(Continued from p. 352.)

MUCH of the vast success and transcendent fame of Buonaparte, arose from circumstances to which even his best biographers have not given sufficient weight, and to qualities of his own mind to which they have given neither due weight nor due condemnation.

The French were a very peculiar people at the close of the last century. Their revolution, their reign of terror, their massacre of their king and queen, and their own butchery by the ruffians whom they set up in place of the meek and amiable king whom they had so foully murdered, had strangely commingled ferocity and timidity in the national character. Ruled with a rod of iron, they cowered and trembled beneath the sanguinary wretches of the reign of terror; and their submission continued as long as it was possible for the most degraded human nature to suffer and not make one desperate effort to terminate the suffering and to crush the tyrant. Elated with their success in revolutionizing their country, the very same men who could exhibit this slavish dread could be guilty of the most awful atrocities; and their every act, under every phase of their political existence, proved them to be a people for whom no government could be so fit as that of a stern, strong, and at the same time, humane and politic despotism.

Looking still farther, looking not merely to the actual and instant fitness of a government for them, but also as to what policy was most likely to make the fit government the permanent government also, we shall find that Buonaparte's personal character, the innate qualities of his heart and head, had no small share in fitting him for the high power to which we shall very shortly see the young conqueror lifting his daring and grasping hand. The bombastic but felicitous style of his eloquence was exactly suited to the theatrical and meretricious taste of the people over whom he aspired to rule; and the brilliancy of his victories was, by dint of the national character, fully and universally appreciated. It was not merely Napoleon Buonaparte who gained a glorious victory, it was the whole of the French people; the glory and the advantage of the victory were not the property of the French merely—every Frenchman had his own personal and direct share of both.

The intense and absorbing vanity of the French people, by causing them thus to individually feel a share in the glory of their young general, had an immense power in paving the way at first to the consulship, and afterwards to the imperial crown. Any other despot than a military one, any other than the victor in a succession of brilliant and loudly-trumpeted victories, would have been absolutely intolerable to the French; but the same vanity which caused them, in imagination, to share his military fame, also reconciled them to what they fancied not but he would share with them—his civil power.

We must not omit, in our enumeration of the circumstances and qualities which aided Napoleon in his designs upon the throne of the ancient kings of France, to make especial and emphatic mention of his deceit, and his utter shameful and dreadful want of principle. In bulletins and despatches, negotiations and private instructions, in every possible form, we shall find he was deceitful beyond measure, and that he considered no means unworthy so that they did but accomplish his ends; and we shall see, too, that his designs were evermore the most terribly treacherous and tyrannous in proportion as his professions were most plausibly generous or just.

We would especially point the attention of our readers to

the foregoing remarks, because we wish to render this sketch of the most remarkable man of modern times not a mere matter of passing amusement, but, at the least, for the foundation of a correct judgment of some of the most important European transactions, subsequent to the revolution of France; and a mere series of facts and dates, though we shall plentifully make use of both of these, would by no means answer our purpose.*

In the result of Buonaparte's exertion of his deceit, and of his indulgence of his utter want of principle, we shall see a new illustration of the great and important moral, that we cannot with impunity sin against our duty to our fellows; for though during a long course of brilliant success he was frequently and largely indebted to his bad qualities for temporary advantages—though his deceit enabled him to grasp the throne—that same deceit lost him the throne. With all our respect for royalty, and with all our detestation for the murderous wretches of the French Revolution, we honestly confess that we think the "First Consul" would have been allowed even to grasp the crown without any very long or bitter hostility on the part of the legitimate monarchs of Europe, if he had not at once disgusted and alarmed them by his repeated acts of perfidy, and want of common principle. Had Buonaparte showed a resolute determination to respect the rights of the other powers of Europe, after the campaigns of Italy, he would have been enabled to secure the tacit support of the European powers, while the affections of a martial and vain people like the French were already sufficiently secured by those campaigns, and would, no doubt, have continued until some legitimate cause for placing himself in an offensive alliance with some of the great powers of Europe should enable him to display his martial talent without drawing down upon himself the inextinguishable hatred of all those powers.

The modern usurper of the French crown would most probably be dethroned by the allied powers, did he send his mighty armies abroad to spoil the land of his neighbours; but we much doubt if he would not be better beloved by his people, *ipso facto*, when engaged in their darling madness—war. If Napoleon's unprincipled and mad ambition had allowed him to respect the rights of his neighbours, he would, in all probability, never have been dethroned in favour of the learned and good-natured *bon vivant* Louis XVIII.; and had Louis Philippe a tithe of Napoleon's military fame to share with "Young France," and thus reconcile that very pugnacious youth to the dulness of these "piping times of peace," the chances would be very much in favour of his being able to review his troops without being shot at, and to travel from one residence to another with a somewhat smaller escort than a force fit to take a moderate sized town. The one had fame but not prudence; the other has prudence but no fame; and that his good lieges cannot forgive.

(To be continued.)

CONVENT OF MOUNT SINAI.

SOMEWHAT out of the direct road from Suez to Akaba stands the convent of Mount Sinai, as it is generally called, though it is in reality dedicated to the Transfiguration. According to the best accounts given of this celebrated convent, it originated in the fourth century, when Helena, the pious mother of Constantine, the first christian emperor,

* We take this opportunity to remark, that "*To be concluded*," as appended to the preceding portion of this article, was an error of the press. It would have been impossible to conclude in one, or even in two.

erected a small church on the supposed site of the burning bush, in which God appeared to Moses. In about another century, the imitative piety of divers persons had led them to erect several similar buildings, together with residences for monks, hermits, and other religious persons, in the same vicinity.

As the inhabitants of these edifices grew in wealth and importance, they found themselves proportionally persecuted and plundered by the fierce and lawless Bedouins. Finding entreaty and resistance—such as they could make—equally unavailing, with these fierce and unprincipled rovers of the desert, the recluses at length addressed a humble memorial to the Emperor Justinian, setting forth the grievances they endured, and entreating his interference on their behalf. Their prayer was not unheeded; for the emperor forthwith built them a fortified convent of considerable strength, and of vast extent. Many years after this, at least so says the very apocryphal account of the monks, a monk of this convent dreamed that the body of St. Catherine, a christian martyr who had recently suffered death at Alexandria, had been miraculously conveyed by angels through the air from the place of her martyrdom, and deposited upon the loftiest of the mountains adjacent to the convent of the Transfiguration. The tradition goes on to assure us, that on the monk relating the dream on the following morning, search was made, and the body actually found where the night vision of the dreamer had indicated that it would be. Such an occurrence could not fail to be of considerable service to the convent. A splendid interment took place, and the Greek Christians, who flocked in great numbers to view the place of so indubitable a miracle, did not fail greatly to enrich the convent of the Transfiguration, or, as they quite as commonly called it, of St. Catherine.

As the wealth and consideration of this convent and the neighbouring establishments were considerably increased, so, in fact, was the number of those to whom they gave shelter; for we find, that as early as the date of the Saracen conquests, their inmates were considered to amount to the enormous number of between six and seven thousand.

The site of the convent of Mount Sinai is exceedingly picturesque and romantic. It stands in a narrow nook that terminates to the south a very lovely valley, and it is backed, and, as it were, sheltered, by lofty and bold rocks, which add much to the grandeur of the scene. Externally, it presents to the eye a quadrangular erection of about a hundred and twenty paces, surrounded by lofty and massive granite walls, each of which is protected by several small but strong towers. Within, it presents ten or twelve quadrangular court yards, after the Eastern fashion, in large edifices, most of which are neatly and elegantly planted with shrubs and flowers, or, in some cases, with culinary vegetables.

Of the mere dwelling apartments, nothing more needs to be said, than that they are unequal in size and irregular in distribution. The chief portion, in fact, of all this vast edifice that demands our attention, is the church, which was built by the Emperor Justinian.

In shape, this beautiful building is an oblong square, standing from east to west. Its roof, which is an extremely fine one, is supported by two rows of granite pillars, which would have a fine and massive, though somewhat stern effect, if they were not, with a most barbarous taste, covered with a casing of white plaster! The floor of the church consists of large slabs of the finest marble; perhaps, even in Italy, it would not be easy to point out a more beautiful one. Silver lamps, and paintings in great number, adorn the walls. The paintings are for the most part portraits; among them, are those of the Emperor Justinian Theodora, and St. Catherine.

Here is also a very large, but not very capital, painting of the Transfiguration.

In addition to this chief church, the convent has several smaller churches and chapels; and in some of them mass is said every day: on Sunday, in all of them. Close by the great church stands a spacious and handsome mosque, or Mahometan church, which was built early in the sixteenth century, to conciliate the Mahometans, and thus insure the safety of the convent. Vast numbers of pilgrims visit this place.

Of the monks, most are Greeks, and their number is now rarely over thirty. Notwithstanding any thing that may be urged against monastic establishments, the inmates of this place, at the least, lead no idle or luxurious life. Their discipline, both as to living and labour, is in fact excessively rigid. Every one of them has some handicraft, or, at least, some laborious pursuit. Thus, one cooks for the whole fraternity, another makes shoes for them all, and so forth. They have a valuable library, including fifteen hundred Greek books, and upwards of five hundred Arabic MSS.; but this possession can by no means be imputed to them as a luxury, they being utterly incapable of reading a line of any other than their own language.

The baker of this little fortress in the wilderness has no sinecure; for, in addition to finding bread for the establishment, he has to prepare for the supply of some thirty or forty daily claimants, principally Arabs, who hold themselves entitled to demand a double ration for every individual once in any one day. This demand has caused so many disputes, from the frequent dissatisfaction of the Arab recipients with the dole allowed them, that the monks have very wisely blocked up the doorway, and the only means now left of the egress or ingress of either persons or goods, is by means of a basket worked by a windlass and rope.

Numerous spots are identified by the monks with some of the most important and interesting events of Scripture. It is quite certain, that thus far much imposition is practised; but when we consider the position of the convent, and know that wherever we tread, we must be "on holy ground," it is impossible not to see that the monks do infinitely less harm by their fables than they do good by the shelter, comfort, and very genuine kindness which they afford to every traveller who visits this spot, so sacred to the Christian, and so interesting to the scholar.

INDIGESTION.

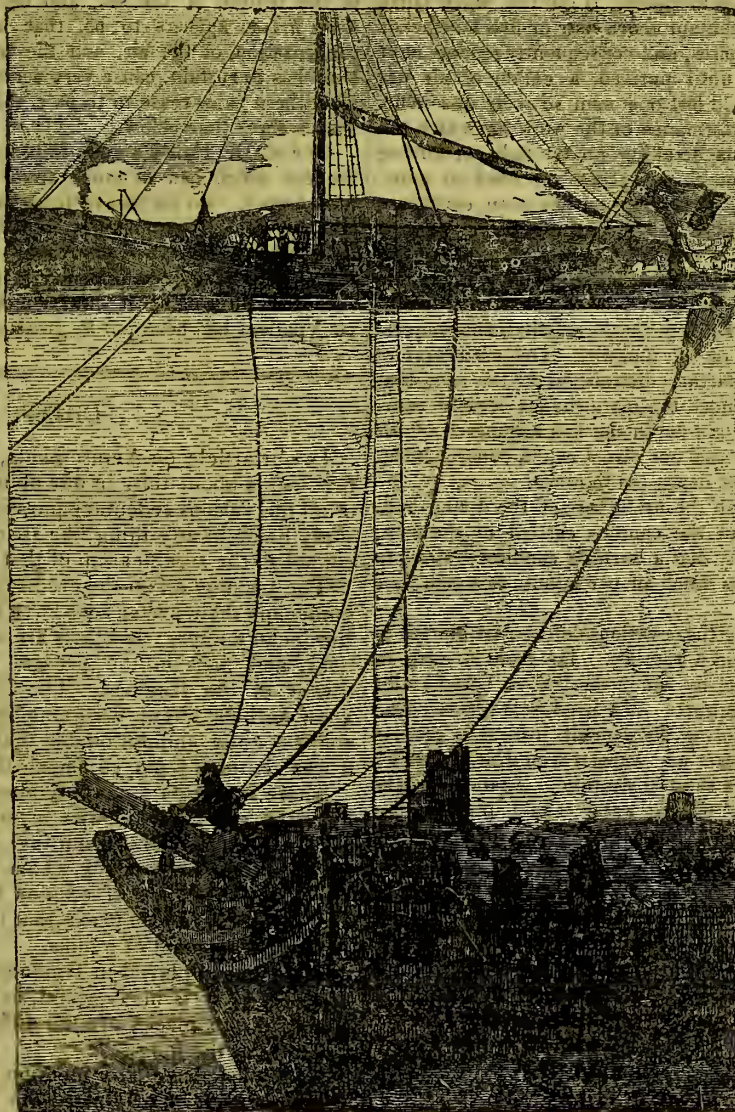
THE "knowledge" which enables us to conserve the body deserves the attention of the "GUIDE" who is sincere and zealous in his vocation, as well as that knowledge which refers to the improvement of the mind. We hope and think that this will be apparent to our readers, in what we lately said upon the two very able and valuable treatises upon "Cataract" and "Deafness," their causes, prevention, and cure.

Perhaps there is no one disease which is more common, or more productive of other diseases, than indigestion. Many a sufferer from real disease, and many a hypochondriac, whose sufferings are not the less real because his disease exists only in his own disordered imagination, owe their really pitiable sufferings to this cause, even when both patients and medical advisers are utterly ignorant of the fact. The truth is, that there is no more insidious and Protean disease than indigestion, its worst manifestations

varying with the different constitutions of those whom it afflicts. So various are these manifestations, in point of fact, that we should not hesitate to believe that many cases of insanity, even, have had their origin in this disease.

Our work, whether as to extent or character, is of course unfit for entering into any thing like details of a professional nature. But we have reverted to this subject because firstly, we believe indigestion to be the tyrant of an infinitely

greater number of people than it has credit for; and secondly, we believe that both doctors and patients, even when the presence of indigestion is discovered, are apt to rely far too much upon medicine, and far too little, or too one-sidedly, upon dietetic treatment. Upon this last point we believe ourselves to be doing very real public service, in directing attention to some equally caustic and sound remarks in the "British and Foreign Medical Reviewer."



MAN, at his birth the most feeble and helpless of all animals,—man, who would perish in the very day of his birth, but for the exquisite tenderness and skill with which he is tended,—is yet enabled to command the very elements; the wide waste of waters making, as it would seem, every continent and every island a separate world, has become to him, not merely no longer an impassable gulf, but, in truth, a more convenient highway than *terra firma* itself.

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Not contented with having taught the ocean to bear his burthen, he has even found the means, under given circumstances, to go *below* the waves, there to reclaim the treasures temporarily snatched from him by accident or tempest. The mean by which he accomplishes this feat is the diving-bell, which is a very stout bell-shaped machine, strongly constructed of wood or copper, or of a mixture of both. It is about nine feet in height, and at the

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bottom, the larger end, about the same in diameter; round the bell are seats for the divers to rest upon, and weights hung round to ensure its sinking quite perpendicularly. The bell-shape is peculiarly adapted for this machine, inasmuch as the great capacity at the bottom causes much of the upper and narrower part of the machine to remain undisturbed by the water.

The machine in this simple form was frequently used for the purpose of recovering property from foundered vessels; but several inconveniences attended. It did not, when fairly immersed in the water, contain above four or five hogsheads of air; and as a man respires, and consequently renders unfit for further respiration, until purified, a gallon of air per minute, a hogshead would last one man scarcely one hour. Now, in order to the performance of the work for which the divers descended, such as breaking up the hulk, or forcing the lockers of a vessel, making fast heaving lines to guns, trunks, casks, &c., fewer than four or five men could not descend to any useful purpose; and thus the working period of each descent was limited to one hour, or something less. The air, moreover, was polluted sooner than it naturally would be, from the circumstance of each respired gallon mixing with the remaining mass; their being, in the original contrivances, no means of getting rid of the foul air. The usefulness of the invention was still farther diminished by the fact, that the deeper the bell descended the more the air became compressed; so that at a certain depth the five hogsheads of air would be reduced to one, and our divers could, consequently, only remain below at that depth ten minutes.

Still farther to diminish the usefulness of the diving-bell, it had no other light than the candles carried by the men, and we need scarcely say that a burning candle requires, to support its combustion, as much air per minute as a man does to supply his respiration.

Dr. Halley, considering these various defects, set himself to work to endeavour to find a remedy. He fixed a cock in the head of the machine, by which the foul air could be let off as occasion might require. We need scarcely say that there was no danger of losing the pure air, instead of getting rid of the foul; for the better and warmer would be invariably the lighter, and therefore the top stratum. Again, it might seem that the pressure of the water would prevent the egress of the refuse air; but the pressure from beneath prevented the possibility of that.

He also contrived a second and smaller bell, which was kept continually rising and sinking, taking down a supply of fresh air at each descent. A strong leathern pipe in its head, secured at the end by a brass cock, allowed the divers to help themselves to fresh air as they found it convenient.

Perhaps the most important improvement made by the Doctor was his mode of supplying natural instead of artificial light, thus diminishing the expenditure of air. A powerful lens, eight inches in diameter, was fixed with its convex side downwards, in the head of the machine; and, so long as the sea remained calm, the light thus afforded, as the Doctor's own experience enabled him to affirm, was sufficient for the perusal of the Gazette.

The Doctor next turned his attention to the possibility of contriving means to detach a man from the bell to examine the vicinity; a proceeding of which it will be no difficult matter to understand the importance under many circumstances, but especially where the violence of the wreck, or from long submersion, a ship's stores and cargo might be very widely scattered. The Doctor's contrivance for this purpose was a sort of hood, or helmet of lead, having a flexible pipe in the top, through which the detached diver

could procure air by simply turning a cock, the other end of the pipe communicating with the bell. Upon these improvements, still further improvements have been made by more modern skill. From various vessels, especially from the *Royal George*, great amount of treasure has been recovered; and in a variety of works requiring subaqueous exertion, the diving-bell has been found of almost incalculable value, both in diminishing expense, and decreasing the risk of human life. Indeed, the sole difference of being in the diving-bell at the bottom of the sea, and being high and dry, upon *terra firma*, appears to be, that in the former case the condensation of the air, and the tremendous pressure the body has to sustain, cause very acute pains in the ears, and even these pains cease to trouble the divers after they have been a short time below.

One of Dr. Halley's men, thinking to avoid the pains in the ear which had so much annoyed him, stuffed his ears full of wool. So far was he from having bettered his case, that the tremendous pressure actually forced the wool, in a hard and compact mass, so far and so fast into his ears, that it was with very great difficulty that the surgeon at length succeeded in getting it out; which he only did after the poor patient had been put to great pain and inconvenience.

CHESS.

In our article on Amusements, we promised to say a few words about this, in our opinion, the most rational of all the various sedentary pursuits termed amusements, study being in any thing like strictness of speech not included in the signification of that word.

The Chinese claim the credit of having invented this game, and their pretensions have been supported by some European authors; but facts are more potent than assertions, and facts in the present case are decidedly in favour of the Hindoos. The Chinese admit that they knew nothing about the game until the year 174 B. C., and it is quite unquestionable that long before that time it was commonly played among the Hindoos.

There is a dispute not only about who invented chess, but also about how it was invented; some contending that it must have been improved and perfected step by step, while others (among whom is the highly-gifted Sir William Jones), are of opinion that its very simplicity and perfection go to prove that it was the conception of one happy moment of genius.

The game is played in Hindoostan, and also in Persia, precisely as it is in England, as to principles; but the names of the pieces are all different, with the exception only of the king.

As instances, we may mention that what we call the queen, is the *ferz*, or vizier; our bishop, the *fil*, hust, or elephant; our knight, the *asp* or *ghora*; war house, our castle, the *rath*, roth, or war-chariot, and sometimes the *nanca*, or boat.

The Indian origin of the game is, we think, considerably attested by the fact, that our rook is a corruption of the Persian *rokh*, from the Hindoostanec *roth*; and the *vierge* and *fol*, or *fou*, of the French corruptions of the *ferz* and *fil* of the Persians and Arabs, who unquestionably derive the game from the Hindoos.

In a subsequent part of this article we shall endeavour to give our readers so much instruction as may enable them to, at the least, commence this truly rational and interesting amusement.

The form of the chess-board is of course too familiar to all our readers to require any description. The chequers or squares, alternately black and white, are sixty-four in number; and on sitting down to play, it is the established rule so to place the board that each player has the right hand square of his rear line the white one. The "men," as they are called, are thirty-two in number; half being white, and the other half red, or black. Of the sixteen men which each player appropriates to himself, eight are called pawns, and eight pieces; the latter being the king, queen, two bishops, two knights, and two rooks, or castles. We cannot, without interfering very injuriously with important matters, wait to procure an engraving of the board, but a little attention to the following paragraph will, especially if the reader compare our rows of figures with the lines of squares on a chess-board, answer all the practical purposes. At the onset of the game each party, having sixteen men, ranges them on his two rearmost rows of squares thus—the figure *one* representing the right-hand rear corner:—

Rook.	Knight.	Bishop.	Queen.	King.	Bishop.	Knight.	Rook.
1	2	3	4	5	6	7	8

The second row is entirely occupied with pawns, each of the pawns being called after the piece before which it stands.

Previous to entering upon an explanation of the various movements and power of the different men, it may perhaps not be amiss to give a succinct account of the laws of chess as established and recognised by the best players; for without due knowledge of these laws, and attention to them, the young player will be perpetually liable to fall into errors, and more especially if he has learned to play at draughts, which has laws very widely different from those of chess, though the two games seem to bear so strong a likeness to each other.

Though in itself a matter of no sort of consequence, the right-hand rear corner of the board should be invariably the white one. Attention to this rule is very important; for the first, second, or third move of your adversary may be so injudicious as to secure you the game. If the board be placed wrong, and he discover it previous to each party having made four moves, he can demand that its position be rectified, and the game recommenced. Where so much disadvantage may follow neglect, it is well worth while to be attentive.

Common attention will prevent any error as to placing the pieces in their proper squares; but should a mistake occur, it may be repaired, if pointed out before each party has made four moves. After they have made that number of moves, the error cannot be rectified.

It frequently happens that a good player will give an inferior player odds; *i. e.* that the superior player will, previous to the commencement of the game, remove some piece or pieces from his lines,—thus at the onset giving the numerical superiority to his adversary. When this is not the case, the parties draw lots for the first move, and for choice of colour of men. The latter once decided remains unaltered during the whole sitting; the first move is enjoyed by each player in the alternate games; but a drawn game conferring no advantage on either party, he who made the first in it is entitled to the first move in the new game.

If odds be promised to be given, and the party promising neglects to remove the piece or pieces he was to

forego, and does not rectify his error before each party has moved four times, the game may as well, on his part, be done with at once; for even should he check-mate his opponent, the game will only count as a "drawn one." The party who gives odds may give the piece from which side of his line he chooses, except when he gives a pawn; in which case it must be the king's bishop's pawn, *viz.* that pawn which, in our sketch, would stand opposite to No. 3. Whatever odds be given, the giver has the right to move first. Great care must be taken not to touch a man until it is fully determined to move that one. If this is done without the saving exclamation, "J'adoube," the piece must be moved, however fatal it may be to your game. To this rule there is an exception in favour of the king, if he is so situated that he cannot be moved without being placed in check.

Having removed your hand from a piece after moving it, the move is completed; previous to doing so, you are at liberty to move it to what square you choose, as far as consists with the direction in which the piece has a right to move. Nothing but very gross inattention can cause a player to move instead of a man of his own one which belongs to his adversary. Such things do, however, sometimes occur, and the penalty of the offence against chess law, is that the offender, at the option of his adversary, shall take the piece if it can be taken, replace it, and move his king, or leave the piece in the square in which he has placed it. We can scarcely imagine a situation of the game in which a skilful player could not derive a tremendous advantage from enforcing one or the other of these penalties.

We shall by and by have to show, that the different pieces have very different powers, as to direction of motion. Great care must be taken not merely to know these various powers very familiarly and exactly; for if a player take a piece of his adversary's, by making a move in a direction not legitimately belonging to his own piece, he must either play the piece he has touched, or take his adversary's piece with one that can rightly move in that direction. Here, again, the offender's penalty is left to the option of his opponent, who, of course, will choose that which most benefits his own game.

Not merely as to direction, but also as to distance, the moves of the different pieces are very different; and great care must be taken not to give to one piece the move which properly belongs to another. For instance, if a rook is moved as though it were a bishop, the offender, at his antagonist's option, must either replace the piece, and play his king, or leave the piece when played.

Impatience, the result of nervousness or forgetfulness, arising from an anxious study of the board, sometimes causes a novice to move twice successively; this the adversary may punish by making the second move stand good.

On giving "check," audible notice of the fact should be given.

If the word "check" be used by one of the players, and it turn out that there was no check, any move made by the opposite player in consequence of the exclamation may be altered, if the mistake he discovered prior to the next move.

All penalties must be demanded before the party demanding them touch one of his pieces. If, at the close of the game, one party have three or four pieces, and the other only one or two, the former must "check-mate" in fifty moves, or the game is to be deemed a drawn

one. This is a very useful regulation, to prevent a mere puerile holding out of the game.

In some treatises on chess, we have met with directions as to the stakes that may be played for. Our direction on the subject shall be very brief; to wit, never play for any stake, large or small. The game of chess is a beautiful and an interesting one; a pastime well calculated, too, to improve the higher intellectual powers. If these considerations be not sufficient to keep the attention alive, if chess cannot be played without the admixture of gambling, better not play it at all.

(To be continued in our next.)

THE ANCIENT SCOTCH HIGHLANDERS.

CERTAINLY steam and commerce do a great deal in the way of increasing the "wealth of nations" and the comfort of individuals, but they are by no means so favourable to what we may call the social picturesque. Men get parallelogrammatised at a prodigious rate; the angularities, pleasing or otherwise, are worn down, and society presents no difference or extent of class; individualities have disappeared,—

John nods at Tom; each plodder has his brother,
And half a city just reflects the other."

We must not be for a moment understood to quarrel with the advance of civilisation. We are not at all insensible to the vast benefits which society has derived and is daily deriving from the increased and increasing civilisation to which we allude. All that we object to is the impossibility of preserving the picturesque while exalting the social and intellectual.

If, however, we cannot with our bodily eyes look upon the social picturesque as it was wont to be looked upon much less than a century ago, we can look upon it through the medium of books; and it is no unpleasing occupation to compare the manners of one age and people with those of another. It makes our minds more cosmopolitan, and, at the same time, sharpens our perception of the good or evil of the manners in daily use among our own actual community.

We know not a more interesting people to contemplate than the ancient Scottish Highlanders. Their courage, their undying love of freedom, the romantic country they inhabited, and the singularities of their habits and customs, would make them highly interesting even had not the splendid genius of the late Sir Walter Scott illustrated their character, and thrown a brilliant halo around it.

The first and most admirable quality that attracts our attention in the character of the people of whom we are writing, is their hospitality. To such an extent was this carried, that up to a comparatively recent period it was absolutely esteemed criminal on the part of a man of station and substance to have his door shut. Even at the present time this custom so far prevails, that when any one of the wandering poor in the Highlands wants aid, he does not, as beggars in this country do, solicit alms at the door or gate, but walks into the cabin, and seats himself by the fire, quite confident that the host will not fail to supply him with oatmeal for his food, and with a warm corner, in which, wrapped in his plaid, he may pass the night safe from the inclemency of the

weather. Most fortunate it is for these stragglers that their compatriots are thus charitable; were it otherwise, many of them would inevitably perish in so stormy and bitter a climate. Next to their hospitality, we cannot but admire the devotion, mistaken as it sometimes was as to its mode of manifestation, which the clansmen exhibited to their chief. In war his safety was far dearer to them than their own, and in peace his word was to every man among them a positive law. Unfortunately, both chiefs and clansmen had a terrible drawback from their otherwise fine qualities: this was their fierce military pride, which caused much strife and bloodshed. Every chief being despotic in his authority over his own clan, became proportionally jealous of any chieftain whose clan was more numerous than his own; and from this constant jealousy among so many small states, (for the clans were such, in fact,) it was inevitable that much mischievous misunderstanding would ensue, and lead to feud, and fighting. And however much we may be inclined to admire that courage which both Highland and Lowland Scotch have so abundantly displayed in every quarter of the globe, it would be a breach of duty to neglect to state that Highland courage, previous to the commencement of civilisation, was so truculent and eager for exercise as to deserve the name of ferocity.

Feuds between the various clans being so common, some inviolable protection of individual travellers became absolutely indispensable. In this necessity originated the importance of the manner in which a traveller, on entering the territory belonging to a different clan, carried his spear. If he carried it with the point to his front, he fairly proclaimed himself to have arrived as a foe, and he of course had to take the consequences of his temerity. If, on the contrary, he kept his spear pointed to his rear, he was not only not molested, but was treated with the most prompt and liberal hospitality.

To this generous trait we feel pleasure in adding another. Fierce as was the enmity between clan and clan, a chieftain no sooner received intelligence of the death of a foe than he and his clan mourned for him as though he had been connected with, and not hostile to them.

The Scottish mode of burial was very simple, but no less impressive. A grave being opened to the depth of seven or eight feet, the bottom was neatly and evenly covered with the finest clay. On this bed was laid the body of the deceased. If he had been a warrior, his sword and twelve arrows were laid by his side. Another stratum of clay was laid upon the body, and then the grave was filled up with fine mould, and enclosed with four massive stones.

EGYPT, NUBIA, AND ABYSSINIA.

(Concluded from p. 397.)

NUBIA comprehends all the countries included between the 11th and 24th degrees of north latitude; bounded by Egypt on the north, the Arabian Gulf on the east, by Abyssinia on the south, and Bornou on the west; an extent of territory about 700 miles in length, and 500 in breadth. The principal districts in the division of eastern Africa are Senaar, Meroe, Dongola, and Nouba, or Nubia Proper; which last is the inhabited part, consisting of a narrow strip on the banks of the Nile, 500 miles long, and averaging only half a mile broad.

The present Nubians derive their origin from the Bedouin Arabs, who invaded the country after the promulgation of the Mahomedan creed, and was occupied for several centuries by two of these Arab tribes, who were continually at war with each other. The tribe of *el Gharbye*, the weaker of the two, procured from Sultan Selim the Great a body of soldiers for their protection, who expelled the other tribe. The present governors of Nubia are three brothers, descendants of the chief, whom Selim's troops established as ruler of the country. The revenues of these governors arise from a tax upon every water-wheel employed in watering the land, generally at the rate of six sheep, and six measures of wheat for every wheel. There are about 700 of these wheels between the first and second cataracts of the Nile; and in good years, the land watered by each wheel will yield about 1500 bushels of grain. The governors also take two clusters of fruit from every date tree, and levy a duty upon the dates exported. They derive, likewise, a considerable income from the administration of justice, which they liberally sell to the best bidder. It is estimated that each of them collects annually about 3000*l.*, of which he does not spend 300*l.* They maintain a few hundred horsemen, and with these constantly move from place to place to collect revenues.

The capital of Nubia, or usual residence of these governors, is *Dehr*, a village of the larger class, composed of about 200 mud houses, with a brick building of two stories for the governor. The climate of the country is extremely hot and dry.

After the inundation of the Nile, the natives sow their land with a grain called *dhourra*, upon which they chiefly depend for subsistence; the dry stalks of which supply their cattle with provender in summer. After the *dhourra* harvest is ended in December and January, the soil is irrigated by means of the wheels turned by cows, and the fields are then sown for the second time with barley, wheat, beans, and tobacco.

The houses of the Nubians are built of loose stones, or merely of mud, and are often so low that a person cannot stand upright in them, in some cases having no roofs at all. The dress of the natives is commonly a linen shirt only, with a small white linen cap, and a few rags twisted round it as a turban. Both sexes besmear their faces with fat, by way of ornament, and protection from the heat of the sun. Boys and girls are almost entirely naked. The men are seldom unarmed; and the first thing the youth procures is a short, crooked knife, which is drawn in every quarrel. Those who can afford it, wear a long, straight sword, procured from Egypt. Some have match-locks; but fire-arms are not common, and ammunition is remarkably scarce. The Nubians are somewhat low of stature, but are muscular and well made, with fine, animated features. In some of the rocky districts where food is scanty, they are thin and meagre figures, almost like walking skeletons. The women are also well formed, and though not handsome, have generally sweet countenances, and pleasing manners; but are broken down by early and continual toil. They are more virtuous than any other females in the eastern parts of Africa.

If one Nubian kill another he must pay the debt of blood to the family of the deceased, and a fine to the governor of seven sheep, a cow, and six camels. Every wound inflicted by one person on another has its stated fine, according to the part of the body injured. Among the amusements of these people, chess is common. They play very melodious airs on an instrument like an Egyptian tamboura, and the girls are fond of singing. The whole population is estimated only at 100,000.

There are numerous antiquities in Nubia, but the most

distinguished is the Temple of Ebsambal, explored by Mr. Belzoni in 1817. It is cut out of a solid rock, and remains in complete preservation. There are in one of the recesses of the rock four sitting colossal figures, the largest in Egypt except the great Sphynx and the Pyramids.

ABYSSINIA is divided into three distinct and independent states, called Tigrè, Amhara, and Shoa with Efat. The first at its most northern extremity lies about 15° 35' north latitude, and at the southernmost point 11° 20'. It comprises ten chief subdivisions, and many others of minor importance; its general character is that of a range of hill forts, intersected by deep ravines and well-cultivated plains. The inhabitants are a fine race of men, tracing their origin to the Portuguese soldiers settled in the country. Its chief feature is a considerable branch of the Nile, called Tacazzè. Mr. Bruce observed a phenomenon, in passing this district, not unusual in mountainous countries. On the 17th of November the tops of the mountains were hid in clouds, from whence loud thunder was heard to reverberate. "The river scarcely appeared to run," says the traveller, "on our passing it, when all on a sudden we heard a noise from the mountains above, louder than the loudest thunder. Our guides on this flew to their baggage, and placed it on the top of a green hill; which was no sooner done than we saw the river coming down in a stream about the height of a man, and the breadth of the whole bed it used to occupy." An antelope was surprised by the torrent, and driven close to where the travellers stood. The soil in Tigrè is sandy, and the rocks rise in vertical strata of granite. This district supplies the whole of Abyssinia with salt.

Of the kingdom of Amhara little is known. It forms a high table land, having on the south-east lofty mountains, connected with those of Lasta. In it is the large lake of Dengla, which abounds with the hippopotamus.

The provinces of Shoa and Efat lie south of Tigrè and Amhara, between the ninth and eleventh degrees of latitude, and are intersected by some high land. Efat is one of the best territories of Abyssinia, and famed for a good breed of horses. The inhabitants are dexterous horsemen, and good soldiers. Shoa joins Efat on the west, and is watered by the tributaries of the Nile; it contains fine pastures, large towns, and numerous monasteries.

The inhabitants of Abyssinia are described as somewhat superior to most African nations: they manufacture small carpets, parchment, with iron and brass articles; hides are tanned to great perfection in Tigrè; saddles and horse-trappings are all of a superior workmanship. Bruce, the Abyssinian traveller, has been often charged with exaggerating his pictures of life in that country; but in the absence of better authority we are constrained to depend upon his for what is to be learnt on the subject. He describes a feast of the higher classes in which a cow is brought to the door, the feet are tied, the skin is stripped from the hind quarters, and the flesh cut from the animal while alive; the prodigious noise made by the unfortunate beast being the signal for the commencement of the feast. The Abyssinian is in general well made, with handsome features, approaching to the Roman standard. In some parts of the country there are still remnants of the Nile worshippers. The high-priest described by Bruce was a venerable patriarch, blessed with a family of eighty-five children! The mountains of Samen are nearly occupied by Jews.

HORRORS OF THE LATE SLAVE-TRADE.

WE never think of the horrors to which the slave-trade gave rise without feeling proud of, and grateful to,

those distinguished English gentlemen who toiled unceasingly during long years for the abolition of that unnatural traffic, which they at length succeeded in procuring.

Of the horrors of slavery itself, enough has been said during the years when its infliction was among our national sins and inconsistencies; but we think a small portion of our space will not be uselessly devoted to giving some account of one of the very numerous instances in which the worse than pirates who were engaged in capturing and transporting the unfortunate negroes, were awfully punished for their wickedness by, and while in the commission of it. The case we have selected is that of the *Rodeur*, a French slave-ship.

This vessel, about two hundred tons burden, left Havre in January 1819, and anchored at Bonny, in the African river Calabar, on the 14th of the March ensuing. The crew was in number twenty-two; and both during the outward-bound passage, and their stay at Bonny, which was nearly a month in duration, they all enjoyed uninterrupted good health. Having procured a hundred and sixty slaves, they crowded the whole of the unfortunate creatures into the hold, and between decks, and set sail on their return voyage. They had been at sea only about a fortnight when the captain remarked that the whole of the negroes were afflicted with violent inflammation in the eyes. At first but little notice was taken of this circumstance; but as it was quite obvious that a want of fresh air was felt below, the surgeon of the vessel advised that a few of the negroes at a time should be allowed to go on deck.

Torn from their native land by their tyrants, the unfortunate negroes would, under any circumstances, have had but little room to hope well of the future; but to fear for the future, the miserable people added terrible existing suffering. Crowded night and day in a space so insufficient for their number that the atmosphere was absolutely pestiferous, they were at the same time limited to the weight of eight ounces of water per diem!

Tortured thus mentally and bodily, it is little to be wondered at that the unhappy slaves became absolutely desperate; and many of them, immediately on reaching the deck, leaped into the sea, and were drowned. The captain endeavoured, by putting some of the slaves to death, to deter others from committing suicide, but their sufferings made severity of no avail; and fearing he should lose all the profit he had anticipated from his ruffianly and heartless speculation, he gave orders that the negroes should on no account be allowed to go on deck any more. The consequence was just what any one, not absolutely deprived of his judgment by his wicked and desperate avarice, might have foreseen; the inflammation of the eyes was not only increased to a most frightful extent among the unhappy negroes, but at length laid hold upon the crew; man after man was attacked, till there was but one among the crew who had entirely escaped the contagion. Horror seized the hearts of even the callous ruffians of the slave-ship, as they reflected upon the fate that awaited them, should they all lose their sight. In such a condition, how would they reach the West Indies, even if the negroes should not revolt; and if they should revolt, how could blind men resist, or how could man-stealers and torturers hope for mercy at the hands of their victims?

These feelings would have naturally presented

themselves to these ruffians in their hour of peril even had not precedent come to the aid of reflection; but, in fact, precedent existed in this case. The *Rodeur*, earlier in her return voyage, had spoken a Spanish slaver called the *Leon*; the whole of the crew of that ship actually was blind, and the vessel was drifting at the mercy of every wind. The *Rodeur*, already overstocked with passengers, had left the crew and slaves of the *Leon** to their fate; and it will easily be supposed that they now anticipated a similar one.

The *Rodeur*, after dreadful suffering, reached her destination, Guadaloupe, on the 21st of June. Of the unhappy slaves, thirty-nine had totally lost the sight of both eyes, twelve had lost the sight of one eye, and fourteen more had their sight more or less injured. Of the crew, whose execrable misconduct was the cause of all this frightful amount of suffering, twelve, including the surgeon, were totally deprived of the sight of both eyes; five, including the captain, lost the sight of one eye; and four had their eyes injured in a greater or less degree.

The narrative of this disastrous voyage bestows great praise on the ruffianly captain for having never "ceased, in the midst of the greatest danger, to lavish his attention on the negroes and the crew, with a zeal and a devotedness which exceed all praise." How a really able man could bring himself to pen such inconsistent trash we really cannot imagine. "Lavish his attentions!" No doubt; as he would in the case of a cargo of pigs. The unhappy negroes were his stock in trade, and he did not wish to lose any portion of it. But we shall at once see the extent and kind of the benevolent feeling which prompted him to "lavish his attentions" upon the negroes so long as there was even a chance of their sight being preserved, in this fact, that those negroes who totally lost their sight were thrown overboard and drowned! So much for the "attentions," and the "zeal and devotedness, which exceed all praise!"

EFFECT OF THE MIND ON THE BODY.

If the mind is in some sort "the minion of the body"—and who of us during bodily illness has not felt it to be so?—there be not a few occasions when the body is but the manacled slave of the mind.

"The hair grows white
In a single night"

under the withering effect of excessive terror, and that feeling has even been known to curdle up the hot and dancing blood so suddenly and so utterly as to smite with idiotcy, dumbness, and even death!

There is a tradition in Devonshire of a case of the latter sort, which has always struck us to be singularly impressive. From Lydford bridge there is a most sublimely wild view, just such a one as Salvator Rosa would choose for one of his noble banditti pieces. The rocks on either side the surging and clamorous stream are of a tremendous depth, and of the most sublimely abrupt irregularity. Across the almost Alpine torrent is the bridge. Some years ago a tremendous storm produced such a flood that the bridge was broken down. It chanced that on the following night a traveller, quite

* The *Leon* was never heard of afterwards no doubt she went down with every creature on board.

unaware of the accident that had happened, finding himself surrounded by the shadows of evening, rode so swiftly along this road that his horse, with the fine sagacity inherent in that noble animal, actually leaped across the torrent without the rider having the slightest notion of what had occurred. On arriving at an inn in the neighbourhood, he found the recent accident to the bridge the topic of conversation. On his mentioning the road by which he had come, some incredulity was expressed by the company, who thought it impossible that he could have arrived in safety by that way,

and that he must be mistaken;—he for his own part thinking that the company were either mystifying him, or quite mistaken as to the road by which he professed to have travelled. On the following morning, accompanied by some of the party, he retraced his route as far as the site of the bridge, and on looking down the tremendous precipice, the mere sight of the horrible abyss he had escaped so much shook his system, that he gave one convulsive shudder, fell back, and expired!

SELF-INSTRUCTOR IN ENGLISH COMPOSITION.—No. IV.

THE highest and most difficult order of writing poetry is precisely that in which young authors are usually presumptuous enough to try their powers. Every one who has at any time been concerned with the editorial department of a periodical, will bear us out in saying, that for every piece of nonsense in prose, he was afflicted with twenty hallucinations in verse. "Bowers and showers," "loves and doves," behold! your incipient poet, who,

"Pens dull stanzas, when he should engross,"

will find in those four words sufficient *materiel* upon which to found as vile a doggerel ditty as ever was addressed "to Laura," or to "Laura's lap-dog." Even upon this work, though it never aimed at furnishing mere amusement, a variety of such small matters were inflicted when we commenced publishing; and deep and divers were the epistolary lamentations of the want of knowledge of our own and our reader's interest, as evidenced by our determination to follow the fashion of Molière's *Gentilhomme Bourgeois*, and "speak prose all our life," though not so unconsciously as that erudite *badaud* performed the same operation.

But though scribblers of all sorts and sizes fancy that poetry is their *forte*, there are no few among them, as well as among non-writing readers, who really and truly do not know what is poetry.

Rhyme, indeed, they confess to be by no means essential to poetry. Both Shakspeare and Milton, to say nothing about the myriads of the lesser lights of poesy, have left immortal testimony to that fact. But *metre*! aye! without that our friends will by no means understand that poetry can exist. The noble "heroic," "eights," or the Alexandrine—

"That, like a wounded snake, drags its slow length along;"

verse smooth, or verse rugged, verse at all events, they will beg to insist upon having; and it is not a very long time since we greatly astonished an acquaintance of ours by assuring him that some of the very best and most touching poetry we ever met with was couched not in verse, but in prose. Startling as the fact may seem, we shall have occasion, in the course of our illustrations, to cite abundant and convincing instances of it. Dancing has been admirably well defined as the "poetry of motion,"* and poetry may, with almost as much correctness, though with infinitely less neatness of phrase,

be defined as the "music of thought." From the awful diapason that peals from the cathedral organ, to the sweet, soft tone of the flute, heard from afar, and across a moonlit river; from the full burst of the martial strain, full fraught with a wild and thrilling melody, that makes the heart of the meekest beat fiercer and faster, to the last low moaning of the harp *Æolus*, when the breeze no longer stirs its strings, how vast a variety of tones and of feelings those notes can awaken! No less vast the variety of mental music: from the terrible rage that lights up the warrior's eye, and peals in the thunder of the orator's voice, down to the unspoken, but oh! how blissful love, with which a mother gazes on her sleeping child, what a variety is there not in "the music of thought!" How absurd, then, to suppose that rhyme and rhythmus, valuable adjuncts as they occasionally are, have aught to do with the inward and essential spirit of poetry! We might as well make beauty depend upon a diamond necklace, or, as we very often and very absurdly do, respectability upon being well dressed, and honour upon the due discharge of gambling debts.

Poetry! Why there is poetry in the soul of the young child, as he bounds from field to field after a butterfly, and there is poetry in the glad glance of the parent, who is watching his graceful form afar; and there is a sad, deep, tender, and, withal, most touching poetry, in the words of that way-worn and maimed soldier, who has just turned from gazing at the happy boy, and is saying, as he sighs,

"And I was once like this! twenty years
Have wrought strange alterations."

But though we hold that the ordinary confounding of poetry and verse, of supposing the latter essentially necessary to, and connected with the former, is about as ridiculous an error as could well be fallen into, we must, for the present, allow the arrangement to remain unaltered by us. We shall treat, at the first, only of that poetry which exists in the various kinds of verses: to prose-poetry we shall devote a separate paper hereafter.

The first division, then, of our account of poetry, following the ordinary acceptation of the word, but once more, and very emphatically protesting against being approvers of that acceptation of it, will be devoted to the Epic.

SELF-INSTRUCTOR IN POLITENESS.—No. IX.

Most readers will, we have no doubt, think that we are guilty of something very like supererogation in warning them against vulgarity. From their very cradles they have

been accustomed to hear that word pronounced in mingle contempt and dislike, and to hear any thing called "vulgar" has been to them an insuperable objection to it.

So far, so good ; but we are greatly mistaken if nineteen of every twenty persons who are loudest in exclaiming against vulgarity, are not, in their own proper persons, entitled to be ranked among the vulgar ! A very shocking assertion this, no doubt ; but instead of lifting up our hands and eyes, and exclaiming, " Oh my ! " let us look the matter steadily in the face ; instead of being very much shocked at the imputation, let us see if it is correct ; and if so, let us be more anxious to get rid of the error than to shuffle away the accusation that refers to it.

We are perfectly right, no matter what our rank or circumstances, in eschewing vulgarity ; but we should thoroughly, and not partially do so ; we must not

"Compound for faults we are inclined to,
By blaming those we have no mind to."

In short, our being free from some vulgarities is not the slightest reason why we should degrade ourselves, and annoy other people, by taking up with other vulgarities.

It is quite possible that a person may do the honours of the table quite unexceptionably, make an unimpeachable bow, talk enough, and not too much, and — most difficult feat ! — laugh gracefully ; it is quite possible, in fact, for a person to appear a very finished gentleman in the eyes of superficial observers, and yet to be, in very truth, as vulgar a person as ever set his feet beneath hospitable mahogany.

Those of our young readers who have done us the favour to read our former papers in this series will, we are quite sure, acquit us of being in any wise inclined to undervalue the effect of manners. But though manners are much, they are not all : habits, and especially those in which morals are concerned, are still more important ; and there is one habit, which we regret to say is very lamentably prevalent, the indulgence of which is a sure proof of vulgarity, no matter whether he who indulges in it be peer or peasant : the evil to which we allude is that of ill-natured gossiping.

In the "good old days," when men monopolized the pen and press, and the gentler sex was deemed incapable of that mental excellence of which, in our more civilized age, it has given so many and such beautiful proofs ; in those "good old times," female gossiping was a favourite theme with the smaller fry of wittings, who were afflicted at once with the *cacoëthes scribendi*, and with a dearth of subject-matter, anent which to scribble. Now, *nous avons changé tout cela !* we have one lady producing a work, on "the connexion of the sciences,"* of which it is no exaggeration to say that there are few men, proud as they are, very few men now living who could have written so admirably upon the subject ; we have another† whose poetry, even in our hard, stern, cold, utilitarian days, is mighty to thrill many hearts, and to elevate many minds ; and we have another,‡ who, to say nothing of innumerable shorter works, both prose and verse, has, in her "Chapters on Church-yards,"§ given to those who have hearts to feel and minds to reason, a series of such touching and powerful illustrations of poor human nature, as, to our judgment, no male writer of the present century — and we do not except even Scott — has equalled, or nearly equalled. No ! It will no longer do for your very small scribblers to expatiate upon female loquacity, or talk of female ignorance. Contrariwise, the cleverest of our tribe must look about him, or the lady-writers of the day will fairly beat us out of the field.

Female loquacity ! Marry ! how seldom do any half-dozen men meet together without every one of them being guilty of contributing his share to a huge stock of ill-natured back-biting ! How seldom does any one of the half-dozen leave

the company without the *quintal sederunt* falling tooth and nail upon his morals, manners, or circumstances, just as he has previously joined in falling upon those of other people ! And this is done among men who would almost as soon hear you accuse them of theft as of vulgarity. We believe well, and hope heartily, of mankind ; but, undoubtedly, they will bear a good deal of amending.

We deem this he-gossiping to be among the most hateful as well as the most prevalent of the half-vices half-follies which the wide and large diffusion of knowledge has not as yet succeeded in extirpating from the land. Perhaps its prevalence may partly be attributed to its not being deemed either vicious or foolish. Men *can* be so beautifully unconscious, when their own faults are concerned !

Your thorough-faced dogmatists, who deem it wise and just to abuse all who are above them, and to flatter, in order to cajole, all who are beneath them, would at once agree with us, if we were to attribute malignant and gratuitous gossiping to the male frequenters of — house, or Almack's. But not even to secure the mighty benefit of their applause do we feel ourselves at liberty to be guilty of the *suppressio veri*. All ranks, but more especially — - - -

As we live there is a specimen now before us ! "Our village" is one of the pleasantest within an omnibus ride of London. Its long and wide main street is planted on each side with elms and poplars ; save here and there, it is innocent of gas lights ; and as you enter of an evening, with the little old-fashioned oil lamps twinkling so oddly over old fashioned fan-lights, and bright brass knockers, fashioned into deformities of the head leonine, all before you and around you has such an out-of-townish air, that, till you get accustomed to it, you fancy yourself a hundred miles from the money-making Babylon ; and are so entirely unconscious, that you are not at the distant village of — or — that when you have duly knocked at your own especial door, you blandly ask if Smith or Jones is within ! It is a very pleasant place, certainly, but if that great London-looking gas-lighted public-house were to disappear from it some fine morning, we should like the place not a jot the less. It stands at the corner of one of the side streets, and there really seems to be something perfectly fascinating about that horse-trough ! Fewer than half a dozen loungers you never see there at any hour of the day, unless, indeed, it chance to rain water-spouts, and blow a gale of wind. "The Lord Rodney," indeed ! Far better call it scandal corner !

Only October the present month undoubtedly is according to the Almanack ; but the "eager and nipping air" would this morning perfectly justify us in fancying December to have come out of its turn. Cloaks and great coats are in great request, and all the coaches that pass, have the windows up ; and yet there, at the head of that pestiferous water-trough, stand several very respectable tradesmen, confabulating together with great unction, and seeming quite unconscious of blue noses and red hands. Ah we see it now ; that malignant and triumphant glance of Ribs the butcher — said to be worth more thousands than his neighbours in general can count hundreds — has revealed the mighty matter. Up that side street dwells a very poor, and we fear a very hopeless, butcher, in the smallest possible way of business. Ribs is assuring his fellow-gossips, that "the fellow can't stand it much longer." They agree with him in opinion, and join in his gratulatory cackination. Foolish Ribs, to go away leaving two of your estimable *confrères* together. If you could only hear what they are now saying of you ! We — but we must stop ; or our gossiping about gossips will outrun all reasonable bounds.

Talking slightly, or in any otherwise injuriously, of the

* Mrs. Somerville.

† Miss L. E. Landon.

‡ Mrs. Caroline Bowles.

§ In "Blackwood's Magazine."



PORCHESTER CASTLE.

HOWEVER much we may enter into the good, sound common sense which pronounces the condition of the great bulk of the community to be far better now than it was in feudal times,—infinitely more picturesque on paper though the latter most undoubtedly are,—it is, notwithstanding, impossible not to think with a somewhat melancholy feeling of the proud and ancient families who have, in the olden day, made glad with the banquet and the dance those immense piles, of which the sole remnants now are grey and crumbling ruins.

One of the most ancient of the numerous ruined castles which are to be found in England, is Porchester castle, of which our artist has given an excellent representation in the above engraving. It is venerable even from the extreme extent to which its decay has gone; and few visitors of the great neighbouring sea-port, Portsmouth, fail to ascend the eminence which is crowned by the mouldering ruin of Porchester castle. Independent of the attractions of the ruin itself, the height on which it stands affords one of the finest views to be met with in that part of the country.

No. XX.—SELF-INSTRUCTOR IN BIOGRAPHY.

CLARK THE MISER.

THE chief value of biography, no doubt, is its power of holding up worthy lives as models of imitation, and subjects of emulation. But there is another, and a scarcely less valuable power, which it possesses; that, namely, of holding

up vice or folly as a beacon to warn against moral shipwreck.

Extravagance of every description we have at all times endeavoured to oppose; and we have lately made some observations upon that very subject. But "extremes meet," and we think it would require very great tact and power, as a dialectician, to enable any one to prove, that in a fair balance of the vices and their effects, even the prodigal is not a more useful member of society than the miser. The former is unwise and cruel, as regards himself and his immediate dependants; the latter is not only thus far guilty, he is at the same time a wilful withholder of benefit to the whole community of which he is a member.

We are by no means admirers of the perversity of that most perverse writer, Mandeville; but thus far we are compelled to agree with him, that even the prodigal does *good*, though *unconsciously* as well as unintentionally. Were all men to busy themselves as far as possible in amassing money, society would speedily be plunged into a state of indescribable misery. All those who have no other capital than strength, skill, and industry, would, even within a very few months, be in a state of actual starvation. True enough it is that a miser does not inflict this evil upon society; but the only reason of that is, that he cannot. Who is he, that he is to be an exception to the general rule? Would it be wrong in all society? Then it is wrong in him, for all aggregates are made up of particulars. Is it right of him? Then it is obviously right of all society, for as the particulars, so the aggregates must necessarily be.

The misguided person whose name is at the head of this paper, is only deserving of mention on account of his miserable parsimony, and the obstinate resolution with which he endured the worst evils to which our nature is obnoxious, rather than part with a coin of that useless hoard, of which not one coin could go with him into the silent and inevitable grave.

By dint of extreme parsimony he, though only in the capacity of a day labourer, contrived to amass pretty nearly a thousand pounds. What Shakespeare says of jealousy, may be quite as truly said of avarice,—it "doth make the meat it feeds on." From being merely stingy and grasping, he became, at length, perfectly insane in his attachment to the mere possession of money, and in his determination not to spend it.

At the advanced age of sixty-six years, and suffering under the indescribable agonies of stone, to say nothing of the infirmities arising from his advanced age, and the maceration of his meagre frame, caused by voluntary starvation; he, the possessor of a sum amply sufficient to have provided him with every description of comfort for the brief remainder of his existence, was found by a surgeon of Edinburgh, lying in a miserable garret, covered with only a single tattered blanket, and without a solitary comfort. When it was proposed to perform an operation to relieve him from the torture he was enduring, he objected only very slightly; but when it was intimated to him that in order to do so with the slightest chance of a successful issue, he must remove to a more comfortable, and, of course, that implied a more expensive, lodging, he made the most resolute resistance; and it was only after much vexatious trouble that his philanthropic advisers could induce him to consent. He did consent, and though he did all that he could to lessen the expence of being restored to health, swallowing soap, for instance, as being cheaper than castor oil! the expenditure of a few pounds, though it relieved him from the intolerable agonies of his formidable disease, actually seems to have rendered him perfectly inconsolable. He became daily more and more penurious, and was, at length, in the year

1817, found one morning quite dead in the wretched and destitute garret to which he voluntarily confined himself.

What obliquities of conduct may not result from faulty moral training! How vast, how tremendous, the responsibility of those, who may aid either in making a rightly or a wrongly governed mind!

BEAR HUNTING IN HUNGARY AND BOHEMIA.

IN the more remote and less cultivated districts of Hungary and Bohemia, the brown or black bear is, in winter, the terror of the shepherds; and hunting him is a favourite pastime with the people of those countries. It is early in the spring that the bears generally do most mischief, when the hard frost has straitened them for several weeks of their forest prey: they then make "raids" by broad daylight into the hamlets and villages; and it is not at all uncommon for a peasant, returning from his labour, to find a furred and whiskered marauder ransacking his hut in quest of provisions. For the chase, the villagers go out in parties three or four together, each man armed with a small axe. When Bruin is found, the hunter who is to make the attack (having grappling hooks fitted to his knees, in order to climb more easily), advances boldly to within fifty or sixty yards, and commences the quarrel by throwing a stone; this done, he makes for a tree which he has selected. As soon as the bear finds himself struck, he starts at a small trot in pursuit of his molester; by the help of his strong claws he climbs slowly up the trunk, but these dig so deep sometimes into the bark, that he finds it difficult to draw them out again. This gives the man full time, who waits steadily till the foremost paw comes within his reach, when he either strikes it off, or mutilates it, so as to stop further progress: the animal then falls to the ground, and is dispatched while stunned with the force of his descent. In another mode of hunting the bear, it frequently does not die. When the beast approaches a flock of sheep, its keepers immediately face him; and one, having commenced hostilities by throwing his stone, takes to his post of security—the tree. The bear climbing up the trunk, arrives easily enough at the branch on which the hunter sits; but by this time the latter has retired a couple of yards from the stem. If the bough is large, the pursuer commonly gets upon it, and advances as well as he may, holding by some of the upper ones, towards his foe; but the other still getting backward where the branch is weaker, keeps with perfect security within three feet of his head. A burlesque kind of dialogue then commences, in which the hunter invites the bear to approach, offers to shake hands with him, promises a loaf of bread, &c.; but, in the mean time, the latter, who dislikes the narrow footing, and moreover feels the branch bend under him, remains somewhat embarrassed as to the disposal of his own person, and begins to think of backing in again towards the trunk of the tree. Meanwhile the hunter, sliding out to the extremity of his branch, drops off into the arms of his comrades below. The joke then ends with a shower of stones, or lighted firebrands, at the bear, who sits discomfited in the tree, very much at a loss what course to pursue. If enraged too far, however, he will sometimes roll his body up, and cast himself down headlong; in which case, should he be not seriously hurt, his tormentors find it convenient to disperse as quickly as possible.

No. X.—SELF-INSTRUCTOR IN POLITENESS.

WE have already sufficiently insisted upon the great influence which a person's manners have upon the opinion formed of him by those with whom he comes in contact. Those who have dealings with us important enough to enable them to ascertain the full extent of either our talents or our integrity, are few indeed compared to those who have opportunity to judge of our manners; and for one person who is unpopular among his acquaintance on account of faults of morals, there are, probably, twenty who owe their unpopularity to faults of manner. They want dignity on the one hand, or courtesy on the other; they have failed to learn that he who lives in society has duties to perform which are quite incompatible with the indulgence of the full "career of his humour," whether that humour incline to the vivacious or the saturnine.

The first and most important requisite to a pleasing manner is a strong desire to please; it is scarcely possible, in fact, to manifest an amiable feeling any otherwise than gracefully. He who has not this desire needs not attempt to be liked, for the good feeling of others must be reciprocated by us, society, like individuals, holding itself aloof from all who display selfishness; and no worse form of selfishness is to be met with than that of a coarse and callous disregard of the feelings of other people.

Let any one who has the sincere desire to please, reflect, however briefly, upon what is most pleasing to himself, and he will not fail to perceive the value of the power of observing a happy medium in his manners. Are you a very grave person? Few annoyances, then, will so strongly excite your ire as the noisy chattering and ridiculous grimace of an empty-headed person, who, self-satisfied and unobservant of the weariness and disgust of his company, keeps chattering on—"de omnibus rebus et quibusdam aliis," until the coach stops, and you are released from your forced and painful proximity to a person whose manners are so foreign to your own, and who very obviously either does not imagine that you have any feelings, or does not care how much he may annoy them. Are you, on the other hand, of a joyous turn, full to overflowing with happy thoughts? What a treat to find yourself tête-à-tête, for a couple of hundred miles or so, with a monosyllabic specimen of humanity, who, in return for the very blandest and best things you can say to him, answers you with a "Yes," or a "No," of which the one is a grunt, and the other very much like a groan!

It may be said that a man's humour is very much determined by constitution and circumstances; that a man of the

melancholic temperament, which is so common in this country, cannot fairly be expected to vie in vivacity with the man of sanguine temperament; and more especially when the natural melancholy of the former has been still further aggravated by long years of cares and sorrows, while the latter is in the full flush of youth, and not merely ignorant of care as an actual thing endured, but actually unsuspecting even of its existence. This reasoning holds good to a certain extent. But is a man a mere animal? Has his mind, then, no self-regulating power? If this be the case, away with all attempts at ameliorating the moral condition of mankind by improving and cultivating man's intellect! True enough it undoubtedly is that some are by nature of a graver and more taciturn inclination than others, and equally true it is that misfortunes and cares increase this inclination; but it is the office of the cultivated mind to rule the feelings into propriety; and the saddest man who ever lived, if well educated, and with, as the vulgar saying has it, "his heart in the right place," could sufficiently temper his demeanour to be no disagreeable or unfit companion for the very gayest company, provided it were possessed of courtesy and kindly feeling.

Whatever our own natural disposition may be, we ought constantly to remember that in company it is our duty to endeavour to give pleasure and not pain to our companions. We have no right to throw a wet blanket on innocent mirth, or to shock the sorrowing by thrusting our hilarity upon their notice.

All that we have said may seem trite; but the tritest truths are not unfrequently the truths which are the least often acted upon, and those, therefore, which most frequently need repetition.

That intellectual power is not always accompanied by politeness, the life of Dr. Johnson sufficiently shows; and the error he fell into our readers may quite fairly be warned against. Probably "surliness can no farther go" than I was carried on the occasion of his walking through the park with a lady. With a very laudable desire to benefit by conversing with such an intellectual giant, the lady tried topic after topic, but all in vain; the Doctor was "not i' the mood," and "Humph!" was the sum and substance of his replies to whatever she said. All but wearied out of temper by his dogged silence, the poor lady, as a last effort, said, "How beautiful and large these trees have grown!" The Doctor stopped short in his colossal striding, and exclaimed in a tone of thunder, "Ma'am! they've got nothing else to do."

No. XIV.—SELF-INSTRUCTOR IN ASTRONOMY.

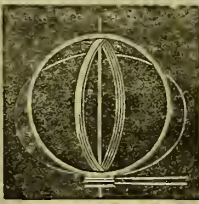
WHY THE PLANETS ARE SPHEROIDS

OBSERVE any isolated portion of fluid matter, and you will see that it naturally forms itself into a globule. Molten lead, quicksilver, or water, will at once demonstrate this. This arises from the principle termed the attraction of gravitation. The aggregated drops or particles of matter which form the globule acquire, in their aggregation, an independent centre of gravity; to this centre all the globules tend, and in their struggle, so to speak, thitherward,—the pressure being every where equal,—they necessarily take the globular form.

It very clearly appears that the same cause produced the

globular figure of the earth and all other planets. But though that principle, *i. e.* the attraction of gravitation, has given the globular form, a counteracting force has changed the perfect globe into a spheroid; the form of which is, accurately enough for all practical purposes, to be observed in an orange. The counteracting cause to which we allude, is centrifugal force. Centripetal force, or the attraction of gravitation, means centre-seeking force; centri-fugal force means centre-flying force. Now, as the former force tends to give the perfect globular form, so the latter tends to change that to the oblate spheroid.

The accompanying diagram, representing two flexible hoops put into swift rotatory motion, will give a tolerable idea of the process of these counteracting motions of the particles of matter. When these hoops are first put in slow motion upon their axis, they appear globular; but as the motion becomes more and more rapid, the poles gradually become depressed, and the equatorial parts extended, as shown by the dots in the diagram.



Sir Isaac Newton held that the figure of the earth must be an oblate spheroid, as a necessary consequence of its rotatory motion. By very careful admeasurements made at the equator, and near the North Pole, it appears that the differ-

ence of diameter at the equator and the poles is thirty-five miles *plus* at the former.

In connexion with the oblate-spheroidal form of the earth, it has been somewhat hastily assumed that this figure must have been acquired while the parts composing the sphere were unhardened. We do not see that there is sufficient ground for this opinion: at all events it is at present only mere hypothesis. True enough it is that the strata of soil seem to tend towards the west, — the eastern shores of countries being usually found low, and sloping gently, while the western shores, on the contrary, rise boldly and precipitously. But the rains and dews may be supposed sufficiently to loosen the exterior particles of matter to allow of the centrifugal force producing these appearances without our having recourse to the extreme case of supposing that the earth has been in a state of semi-liquefaction.

No. VI.—SELF-INSTRUCTOR IN ENGLISH COMPOSITION.

IN our last, we promised that we would speak of Epic poetry, the highest and the most difficult of all the various kinds. That it really deserves to be thus spoken of, we can easily make it appear, though there are, as we are well aware, many persons who think differently. To those persons the Drama appears more difficult, and, at the same time, higher. Leaving, for the present, out of sight the fact, that with only one, though undoubtedly that is a very important, distinction, the Drama and the Epic are identical; leaving that fact out of sight, and, supposing, with the persons to whom we allude, that they are two wholly distinct entities; the question of their respective rank and difficulty, — and the latter is the principal test of the former, — may very readily be decided by the answer to a very simple and brief question, to wit, which of them stands most entirely upon its own inherent and unaided merits for success? Not only will the answer to this question decide the dispute as to the diverse merits of the Drama and the Epic, (still taking the distinction of our opponents as though it were a legitimate one,) but it will also furnish us with a shrewd guess at the cause of the former being lauded and elevated at the expense of the latter. The Drama has all the adjuncts that sight and sound can lend it—decorations, dresses, music; every distinct character is fitly assumed by a distinct individual: the tones of the performer give to every melodious line its full expression; every action is *shown*, instead of being, as in the Epic, only *described*: the form of the passion-shaken man is seen to thrill and writhe; the dark eye of woman visibly flushes in virtuous rage, and the whole scene is so *vraisemblable*, that scarcely any thing is left to the imagination of the spectator. Accordingly, we find that among all orders of men the Drama has its lovers, its supporters, and its critics. In the Epic—still preserving, though protesting against, the alleged distinction already alluded to—all these adjuncts are wanting; and it is only by persons of native imaginative power, or of very carefully trained judgment, that it can be perfectly relished or perfectly understood. This, we think, is the main cause why the Epic and the Drama are supposed to be separate entities; though the real difference between them is simply and merely this, that in the former the action is *related*, and in the latter it is *exhibited*.

Strictly speaking, an Epic poem is the poetical narration of some one great act. It is usual to put this narration into the form of verse; but though usual, it is not absolutely

necessary, or even invariable to do so. As an instance of this, we may point to Fenelon's admirable *Telemachus*, which, though it is written in the prose form, is in all essentials an Epic poem. This seeming paradox our readers will see explained in a former paper, where we pointed out the great and important distinction between poetry and verse.

The action narrated may be wholly fictitious, or partly fictitious, and partly true; but whether the one or the other, it must constantly be progressing. Even the episodes or subactions should in a greater or less degree be connected with this one and prominent act. From the very opening of the poem to its close this act must be kept in view, and both the fable and the action should be so managed that every step taken throughout should conduce to the bringing about the consummation of the act entirely, and in the same course as if the whole were strictly a narration of a real life occurrence. Step should follow step naturally and regularly. The fable itself being at once elevated and interesting, the action also should be proportionally elevated, it being always borne in mind, that the fiercer and more violent the action the more brief must it be. The slightest reflection upon what takes place in actual life will corroborate this last remark. We may be angry for some days, but actual paroxysms of rage cannot last long; the spark may endure undiscovered for some time, but the fierce flame must burn itself out, if it be not timely extinguished.

Homer and Virgil have paid due attention to this point. The character of *Æneas*, and the action of the *Æneid*, are infinitely more placid than the character of *Achilles*, and the action of the *Iliad*; and accordingly we find, that instead of limiting himself, as Homer has done, to somewhat under seven weeks, Virgil extends the action of his poem to a far longer time. Boileau, the celebrated French poet and critic, has laid down some excellent rules for writing an Epic. He points out the necessity for care in choice of an hero. He well directs the poet who would wish his

"—— reader, never should be tir'd,
Choose some great hero, fit to be admir'd;
In courage signal, and in virtue bright;
Let even his imperfections give delight:
Let his great actions our attention bind:
Like *Cæsar*, or *Scipio*, frame his mind;
And not like *Ædipus's* perjur'd race:
A common conquerer is a theme too base."

We shall, however, best show what the Epic ought to be by pointing out in detail the beauties of the Epic as it is in the

country into ruin. Let us set the example of the provinces, and be the first to deserve the protection of the prince, in whose favour Heaven itself has declared."

The consequence of this proclamation was an ordinance from the king, commanding that all armed rebels found in the Spanish territory should be summarily put to death; and all who aided them with council, correspondence, arms, ammunition, money, or provisions, to be treated as traitors. The civil and corporate authorities all over the kingdom were to transmit intelligence of any commotion to the governor of the district, at the rate of an hour and a half per league; on neglecting this duty, to be fined 1,000 ducats, and if the neglect proceeded from mere inattention, they were to be sentenced to six years service in the galleys!

Meantime an invasion of the kingdom of Spain was attempted by some refugees under Mina and Valdez, and signally failed; the details of which it would be unnecessary to repeat, having no reference to Don Carlos.

For some time the king's health had been rapidly declining, and on the 17th of September, 1832, his life was despaired of. Of this event the Carlists took every advantage, by intriguing to seize the crown, even before the breath was out of Ferdinand's body. These intrigues were brought to bear most powerfully on the mind of the dying monarch, and were even furthered by his ministers, eager to secure the favour of Don Carlos, who promised to be the successful competitor in the event of the crown being disputed. The machinations of the Carlists took effect upon the almost expiring Ferdinand, and he was prevailed on to sign a decree which restored the Salic law to its full operation, thus disinheriting his infant daughter; and every preparation was made for proclaiming Don Carlos, so soon as the king should expire. It happened, however, the very day after Ferdinand had been announced as already dead, that his disease took an unexpected and favourable turn; every symptom of danger rapidly disappeared, and consciousness and understanding were restored. The queen lost no time in discovering to him the intrigues by which Don Carlos's party had succeeded in their design; at which Ferdinand was highly indignant, the decree was revoked, the ministers disgraced, and the Infanta restored to her right of succession.

A somewhat different version of this affair is given by the author of "Spain Revisited;" as it is amusing, and we have reason to believe authentic, we will transcribe it:—"When the king was ill at La Granga, in 1832, he was prevailed upon to repeal his will, and leave the crown to Carlos. Soon after he fell into a trance, and was supposed to be dead, during which every thing was arranged to proclaim Don Carlos; and Christina (the queen) herself acquiesced in the act which was to deprive her daughter of a crown, and herself the enjoyment of supreme power, during a long minority. In the meantime, the king came to life again, to the astonishment of every body, and the disappointment of many. Luisa Carlotta (the queen's sister) too, who had been travelling with her husband in Andalusia, now returned. She began by boxing Calomarde's (the chief minister) ears very literally, for not acquainting her with passing events; changed all the arrangements, procured the restoration of the original will, banished all those who had taken part in the scheme, and been too hasty in offering their allegiance to the new king, and violently upbraided her sister for a weakness, which rendered her unworthy to

reign. The stage itself never witnessed, indeed, a more complete shifting of scenes, and sudden reversal of an expected and probable catastrophe."

On the 29th of September, 1833, however, the king really died; and, although he had been married four times, left two daughters, the eldest of whom was only three years old at that time. Shortly after this event, Don Carlos, with his wife and whole family, were ordered to quit Madrid, in consequence of the discovery of an extensive conspiracy, of which he was of course the subject. Upon this, an attempt was made by the apostolics, or adherents of Carlos, to obtain possession of Saragossa, but it was defeated without difficulty.

Before the king's demise a public recognition was made of the Infanta as sole heir to the crown, both in Madrid, and also in every town and city in the kingdom. In the Capital this ceremony was performed with great splendour; but it is said, that the young princess, unaccustomed to such crowds, was alarmed when her hand was so often kissed, and sometimes cried. On these occasions, she was pacified by giving her sugar-plumbs.

The Queen-Dowager lost no time in announcing herself regent, and issued a manifesto, which set forth principles of liberality quite new to Spain; and her daughter was proclaimed queen in Madrid, amidst loud acclamations, on the 24th of October.

The first revolt of any consequence in favour of Carlos took place at Bilboa on the 4th of October, when the monks of the convent of San Francisco came out of their monastery, and marched at the head of a band of Royalist volunteers belonging to Alva, who were soon joined by others from Bilboa, Husto, Bogona. They proclaimed Charles V., and appointed new authorities. Volunteers from the environs repaired to them in crowds; the Marquis de Valdispina made his triumphal entry into the town, where the assemblage of the peasantry devoted to Don Carlos was so great, that they soon reckoned several thousand men in arms. The revolt was equally successful at Orduna, the second large town in Biscay. A more important event was the defection of the garrison of Vittoria, which immediately declared for the insurgents. This example was followed at Logrono, in the vicinity. General Castaganos was employed to collect an army in favour of the queen; but, in an engagement with the Carlists, found himself too weak, and fell back upon Tolosa. The greatest part of the Basque provinces and Navarre, with the exception of Pampeluna, where the revolt failed, fell into the hands of the rebels.

The government, on the other hand, made extensive preparations to meet its enemies in the provinces, and began its operations by disarming the Royalist volunteers of Madrid, who had been always foremost in assisting the Carlist party. They amounted to about 4000 men, and were ordered to surrender their arms on the 27th of October; on the regular troops appearing before them for that purpose, they took up a position in their quarters, and fired on all who approached them; but after an obstinate defence of two hours, they surrendered. A great number of other volunteers, who were proceeding singly to their quarters, were stopped by the troops and patrols, who immediately disarmed them. Even the populace took an active part in the affair. Several volunteers, who attempted to pass through the crowds, were massacred. A similar measure was carried into effect with like success in other parts of the kingdom.

It was not until the 11th of November that General Saarsfeld, viceroy of Navarre, marched against the insurgents who had concentrated their forces towards Vittoria, to meet the approaching attack. The only serious opposition the Christinos (or queen's) army experienced to their progress, was between Burgos and Vittoria. The Carlists were speedily routed and broken up in scattered bands, leaving the Royal army to contract at every day's march the scene of conflict. The queen's troops entered Vittoria on the 21st without encountering the slightest opposition; and at Bilboa, the original scene of the insurrection, the Carlist leaders in vain endeavoured to induce their followers to give battle. Many of them deserted during the night, the new authorities and the monks abandoned the city next day in confusion, and Saarsfeld occupied it quietly on the 25th; and by the end of December the fragments of the revolt were to be found only in the mountains of Navarre. During the whole of these events, Don Carlos was in Portugal, and to his absence from the adherents of his cause is attributed the failure of the insurrection.

In April, 1834, the Spanish government became involved in pecuniary embarrassments, and other events occurred of a favourable nature to the Carlist cause. The provinces of Guipuscoa, Vizcaya, Alva, and Navarre, proved themselves highly favourable to the pretender. The reason for this preference is that these provinces possess extensive municipal and other privileges which were guaranteed to be preserved inviolate in the event of Carlos gaining the crown, while the reforming and equalizing system of the queen's government would have a contrary effect.

Although Don Carlos had been forced to seek refuge in Portugal, he continued to hover about the Spanish frontier with armed hands, which, though not sufficiently strong for purposes of invasion, kept up the spirit of discontent wherever they went, and became as decoys to draw together fresh adherents. In Valencia, a band of insurgents, under the command of a Baron Herves, had taken possession of Morella, and resisted for some time the efforts of the royal troops to reduce them. At the end of December, they issued from their stronghold to enter Arragon, in the attempt to acquire more adherents and join their leader in Navarre. The royalist general followed, and beat them; taking Herves prisoner, and he was summarily shot. Morella having been thus recovered, peace was restored in Valencia. At Orihuela, the students of the University tried to proclaim Don Carlos, which the police of the place promptly prevented. Other commotions took place in various points of Murcia, and were equally abortive.

At this time, a measure, fraught with the greatest danger to the queen's cause, was set on foot by M. Burgos, the minister of the interior. It was his aim to form a militia throughout the kingdom, and knowing that the influence of the Carlists was the strongest with the lower and uneducated classes, on account of the power possessed over them by the priesthood, the minister excluded all persons from joining the militia but those of a certain rank. This decree, from a government whose principles were avowedly liberal, caused so much discontent, that notwithstanding the instruction was modified to embrace a larger number of persons, great inconvenience, and in one instance bloodshed, resulted from it. The Catalonian governor, Llander, refused to carry the order into execution. At Seville, the existing

Urban volunteers disbanded themselves, as did those at Valladolid, Santander, and Salamanca: and even in Sebastian, the very heart of the Carlist warfare, the decree was openly burnt in the streets, in defiance of the authorities. In Madrid, a body of Carlists taking advantage of the general disaffection, rose in arms, fired upon the queen's troops, and fortified themselves in one of the streets; but were at last compelled to surrender: so great was the popular rage excited against M. Burgos that a military force was found necessary for his personal safety.

The operations of the Carlist bands were confined to Navarre, Guipuscoa, Biscay, and Alva; and here they possessed only the open country, for the other party had in Biscay, Bilboa; in Alva, Vittoria; in Navarre, Pampe-luna; and Irun in Guipuscoa. The whole Carlist force was said to amount to no more than six or eight thousand. The supreme command was vested in Zumalacarregui, having under him Zavala, Eraso, and the priest Merino. These generals, however, seldom acted in concert, each followed the plan of attack or retreat which according to his own judgment was best fitted to annoy the enemy, or to secure provisions for their own men. The strength of the insurgents lay not in numbers, military equipment, or military skill, but in the nature of the country, which supplied them with strong recesses, impeded pursuit, and afforded every obstacle to the scientific movements of a combined army. It was not to their interest to engage with their enemy, until they had obtained the advantages of larger numbers and better supplies, and it was impossible for the army to force them to do so.

A victory obtained by the Carlist general, near Pampe-luna, over the queen's troops, rendered remarkable by the horrid cruelty of the former, in burning the prisoners within sight of their comrades; followed many petty skirmishes and engagements, possessing no general interest.

The frequent changing of generals in the queen's army, which seemed to be regulated, not according to their military skill, but just as they succeeded or were defeated in their enterprises, added to the distracted and equally varying state of politics in the civil departments, prevented the exercise of that promptitude and rapidity of motion, so essential for competing with so active an enemy as the regular army had to contend with. But for these disadvantages, there can be little doubt but the war might have taken a most favourable turn for the Christinos, at the point of its history to which we have arrived. But, on the contrary, the government foresaw that the guerilla kind of attacks they were subject to, and which the unaccessibility of the Carlists' strongholds prevented them from returning, would subject the kingdom to a long and harassing state of unsettlement and distraction, unless some decisive step were taken. These considerations induced a renewal of a former treaty, (the quadruple alliance) which was effected on the 22d April, 1834, between Spain, France, England, and Portugal; by which the king of the French, was to "adopt such measures on the frontiers of his states, as may prevent the Spanish insurgents receiving from the French territory any kind of assistance soever, whether in men, arms, or munitions of war." His Majesty of Great Britain engaged "to supply her Catholic Majesty with such arms and munitions of war as she may stand in need of; and moreover, if necessary, to assist her Catholic Majesty by the use of a naval force." His Imperial Majesty the regent of Portugal would "coöperate in

case of need, in assisting her Catholic Majesty with all means in his power, in the way which may be agreed upon by their said majesties."

During the time this matter was in progress of negotiation, Don Carlos himself had retired from Spain to Portugal, and from thence paid a visit to England; the object of which has not transpired. His re-arrival in Navarre seemed to be the signal for the ratification of the quadruple treaty, for at that precise moment it was effected.

The events that immediately succeeded, illustrated in a forcible manner the varying "fortune of war." Rodil, who at the time commanded 20,000 Christinos troops, in active service against the Carlists, to cope with the enemy, divided his force into small parties, and caused the insurgents to disperse and retreat on all sides. In Navarre, he pushed them to the French frontiers, and in Biscay to the sea, fortifying as he advanced such places and positions as he deemed might be afterwards useful. Don Carlos himself was driven about with the most restless activity; sometimes with Zumalacarreguy, and the main army, sometimes with a separate body; at one time retiring unto the fortresses of Biscay, and at another, seeking shelter and safety in the mountains of Navarre. In short, the month of September began with a series of the most signal successes gained by the Christinos. But the Carlists speedily assumed the offensive, and by the end of the same month, all the former had done was most effectually undone by the rebels! They not only laid siege to Elisondo, which Rodil had converted into a fortified position; but assaulted Tolosa, made an attempt on Vergara, and acquired the whole country between Pampeluna and Vittoria, up to the neighbourhood of Estella. With the usual policy of the Spanish government, the queen's general was replaced by Mina, the very man who, only three years previously, made an attempt to invade the territories, and disturb the crown of the father and husband of the queen and regent.

Zumalacarreguy having descended into the plains of Vittoria, in the middle of October, the queen's troops made preparations for cutting him off; a movement which was anticipated by the active Carlist general, who vigorously attacked General O'Doyle, on the 27th October, and 1,400 men, gaining all their artillery, arms, and ammunition. O'Doyle himself fell, and nearly the whole of his division was either killed or captured. This was followed by other successes, pursued by the rebels up to the very walls of Vittoria.

It was immediately after these disasters that Mina assumed the command of the royal troops. In a proclamation addressed to the people of Navarre, the following sanguinary passage occurred: "I therefore warn you, that every individual the troops shall meet from this moment, at a distance from the high road, between the hours of sunset and sunrise, who shall not be able to give a satisfactory account of himself, *shall be immediately shot!*" This was answered by another issued by Zumalacarreguy, which set forth that "all prisoners taken from the enemy shall be shot, as traitors to their legitimate sovereign. In all the corps and battalions under my command, the motto *Victory or death* shall be adopted, and used, until the enemy recall their order for not giving quarter." Mina also stated in his public orders that he "declared a war of extermination against those who should obstinately persevere," and in one day 1,500 of them were exterminated; but the Carlist general, so far from being

routed, successfully attacked General Cordova, at Campeza. Madame Zumalacarreguy, while passing into France, to place one of her children in safety, was, on crossing the frontier, made a prisoner, and placed under the custody of French sentinels.

Confining ourselves strictly to a narration of so much of the affairs of Spain as relate to the Carlist war, we must pass over the commotions in Madrid, which occurred at the beginning of 1835, because they were chiefly occasioned by circumstances over which the rebel army had no control, and were the consequences of ministerial change in the queen's cabinet. Such distraction, however, served in no small degree to split the queen's friends into separate parties, which failing to effect conciliation, became involved in petty misunderstandings, many of which ended in decided defection. Hence the Carlists gained many friends about the court, that under other circumstances they would never have acquired.

This state of things was not confined to the capital. Popular commotion became abundant in different parts of the kingdom, sometimes excited by very slight causes, but all betokening that the public mind was utterly unsettled, easy to be worked upon by designing machinators, and apt to disregard the value of regular and orderly authority. In truth, in all states, at all times, there is always to be found a number of discontented, restless-minded individuals, whose great passion is for change; and if it happens that opportunities present themselves for such discontented persons to assist in working that object, either for better or worse, they will not fail to avail themselves of it, without regard to the justice of the cause in which they enlist. In a country so long torn by civil dissension as Spain has been, it is but fair to infer, there are more of that class of persons than in any other; a class which there is little doubt has served to swell the army and espouse the cause of Don Carlos.

The embarrassments of the government, arising from this want of a commanding influence in the legislature, was greatly increased by the course of military events in Navarre and Biscay. The consequence of the excited state of party feeling in the capital was, that Mina and his army remained for three months nearly inactive, while the Carlists, even in the dead of winter, were continuing hostilities in the mountainous districts. Zumalacarreguy and his subordinate leaders did not expose themselves to the chances of a general engagement, but by rapid marches, directed their attacks against divided bodies of the enemy, or isolated fortresses and positions; and as numerous bodies of regular troops and militia were moving from the interior to reinforce Mina, at Pampeluna, many facilities were afforded to the Carlists in cutting them off, and getting possession of their arms and ammunition, and carrying on that peculiar mode of warfare in which they had so long persisted.

On the 2d of January, the Carlist chief attacked a body of the queen's troops posted at Ormaistegui, not far from Vittoria. The affair was obstinately supported on both sides; but on the following day the queen's general, Caratala, thought it prudent to fall back upon Vittoria, leaving Zumalacarreguy master of the field; he however pushed on, and passing Vittoria, penetrated into Castile, throwing his army between Madrid and Mina, and made several successful movements, in which he gained numerous arms and provisions. On the 5th of January, however, two generals of the queen's army succeeded in bringing him to action, but were repulsed with

a loss, which they themselves owned to amount to 350 men. At the end of the month the Carlists were masters of Los Arcos, where they found 500 muskets, and upwards of 100 prisoners, who had been wounded in the affair of the 5th.

In Navarre, the Carlists were raising the siege of Elisondo, which however, they did not succeed in taking. The savage and cruel disposition of Mina was placed in a strong light during his march to the relief of the garrison. He burned the village of Lecaroz, and shot every fifth man of its population, because they had not held out against the Carlist army. This act appeared the more atrocious, by contrast to the conduct of Zumalacarragui, nearly at the same period. On the 2d of February, a steam vessel in the Spanish service, but manned and commanded by British seamen, captured a vessel on the coast of Biscay, on board of which were twenty-seven Spanish officers, on their way to join Don Carlos. If the orders of Mina had been obeyed, these unfortunate persons would have been put to death; but their English capturers would not suffer such cruelty, and the prisoners were spared. In return for this good deed Zumalacarragui, when he found 100 wounded prisoners at Los Arcos at the end of the month, spared the lives of all of them. After this the Carlist chief employed his forces in the blockade of Bilbao, by cutting off all communications between it and the interior. In fact Mina was completely unsuccessful in most of what he attempted, and he shared the fate of his predecessor, by being obliged to resign the command. The next commander-in-chief was Valdez; who on the 19th of April marched from Vittoria at the head of thirty battalions, five squadrons, and a good field of artillery, to attack the Carlist army, which waited to receive him in the vallies of Amascoas. On the 20th, a sort of running fire began, which continued on the 21st and 22d. Both parties claimed the victory, but the result was, that Valdez fell back upon the Ebro; that Zumalacarragui attacked his rear guard, commanded by Cordova, threw it into confusion, and occasioned a loss of between three and four hundred men.

NAPOLÉON BUONAPARTE.

(Continued from page 399.)

BRILLIANT as were the victories of Italy, we can afford space only to allude to them. Our object is to show the character of Buonaparte as man and ruler, and not as mere general. In the latter character there are plenty of accounts of him already; in the former we know not of one that is at once complete enough to be really useful, and cheap enough to be within the reach of the great body of the reading public. The defeat of the Sardinian troops, despite the skill and discipline acquired in forty years of warfare; the overthrow of the army of Beaulieu, which Austria confidently sent, not merely to arrest the progress of Napoleon, but also to recover the territory of Nice; also of the army, though strongly reinforced, blockaded in Mantua; the crushing defeat of Alvinzi at Arcola; the great battles of Rivoli and La Favorite; and the taking of Mantua, Bergamo, and Treviso; were but a portion of the brilliant success of, we think, the most brilliant campaign of modern times.

We have seen, that very soon after Buonaparte arrived in Italy he formed the design of oppressing Venice: he had assured the Directory of his having a pretext for their atrocious tyranny, if they should desire to plunder Venice of

a "few millions." We may readily believe, that during the two years that the banks of the Adige, the Brenta, and the Tagliamento, were the theatre of war, the conduct of the French troops was by no means such as to prepossess in their favour the inhabitants of that portion of the Venetian territory; and accordingly, when Buonaparte crossed the Tagliamento to ravage Germany, an insurrection, as Buonaparte most impudently and infamously termed it, broke out in the Venetian states. We have seen Buonaparte's own memorably shameless declaration to the Directory when he first arrived in Italy. Are we to suppose that he who made such a declaration would scruple,—when his ambition became enlarged, and squeezing a few millions from the unhappy Venetians was a stroke too mean for his genius to condescend to,—are we to imagine for a moment that this resolute and unscrupulous sworder would hesitate to afford himself "a pretext" for utterly annihilating even the shadow of Venetian independence? It were absurd to dream of such hesitation. To goad the commonalty of the Venetian states into violence, was the first requisite to bribe the venal and trembling council into the utter baseness of "soliciting" the protection of the armed ruffians by whom their territory had so long been plundered and desolated, which would suffice to finish the tyrannous and disgraceful work.

Both portions of the process were accomplished with admirable skill and proportionate success. Several French soldiers—Buonaparte says five hundred, but we may safely divide his number by ten, for his mendacity was absolutely awful—were poniarded by the exasperated peasantry, and the French garrison was driven out of Verona. Behold! a sufficient "pretext" for the savage and heartless proceeding which Buonaparte took as soon as he returned from Germany.

The cool atrocity of the whole of the conduct of France towards the Venetians is enough to make one hate the very name of a "conqueror;" but probably not even the impudence of the actions is equal to the impudence of the defence of them which Buonaparte saw fit to put upon record.

It appears that even in France, when the news arrived that Buonaparte had "acquiesced in the proposition of the Venetian Deputies,"—i. e. that he complied with the request of some venal traitors to subvert, utterly to trample down and annihilate the venerable government of their country,—there were some writers even in revolutionised France who were too high-minded not to protest against such disgraceful proceedings. The arrows were well aimed, and went home to their mark. The vanity of Buonaparte was stung. He despised the *canaille*, indeed, and in his scorning and hating soul, the *canaille* included the whole herd of mankind, save the few dozens who were immediately and indispensably useful to him; but already aiming at the utmost attainable civil power, he was nervously anxious for the popularity which he well knew to be the best and shortest road to it. And accordingly he answered the censure on his "fantastic tricks" of authority at Venice, in a style in which bitterness of soul is very visible through a most elaborate endeavour to affect magnanimity and candour.

Speaking in the third person, he says, "Buonaparte could not say to the Deputies of Venice, who came to ask his advice and assistance against the populace, 'I cannot meddle with your affairs.' We could not say this, for Venice and all its territories had really formed the theatre of the war; and being in the rear of the army of Italy, was really under the jurisdiction of that army. The rights of war confer upon a general the powers of supreme police over the countries which are the seat of the war."

"Woe to the conquered!" was the expression of ancient hate and ferocity.—"Shame to the conqueror!" can scarcely

OF ANGELS.

THE term *Angel* signifies in Hebrew a messenger, a name not of nature, but of office, and is applied to men acting officially with respect to each other; also to human messengers acting under a divine commission; likewise to officers and representatives of the christian church; and, lastly, to inanimate creatures and inferior agents of the Almighty's power;—to a higher order of spiritual and intelligent creatures, of whose nature and employments we have but a very imperfect knowledge;—to the Messiah, the Sent of God, who is often distinguished by the Angel of the Lord, the Angel of the Covenant, &c.

The popular application of the term is, to the spiritual and intelligent beings to which we have already referred, and who are considered to occupy the first rank of creatures, though they have generally assumed a human form. The angels are in Daniel iv. 13, &c. called watchers, from their vigilance: for the same reason they are, in the remains we have of the prophecy attributed to Enoch, named Egregori; which imports the same in Greek. The apostle calls them "ministering spirits," and from their being set in opposition to the nature of man, in Heb. ii. 16, we conclude them capable of the highest employments and happiness, &c.

The existence of angels is incapable of being proved *à priori*; but has, nevertheless, in all religions, maintained an universal prominence. The ancient Sadducees denied the existence of all spirits; and yet the Samaritans and Caraites, reputed of that class, openly allow them, as appears from Abusaid's Arabic version of the Pentateuch, and a comment upon the Pentateuch by Aaron, a Caraites Jew, both extant in manuscript in the library of the king of France. In the Alcoran we find frequent mention of angels, which, in the faith of the Mussulmans, are of different orders, and destined to different employments, both in heaven and in earth. They attribute to the angel Gabriel of descending from heaven to earth in the space of an hour, and of overturning a mountain with a single feather of his wing. Esraphil they describe as standing with a trumpet in his mouth, ready to proclaim the day of judgment. The highest order of this heavenly hierarchy is named Azazel, to which Satan, so called in the Alcoran, (as also Eblis, or Perdition) is said to have originally belonged; and also the Gabriel and Michael of holy writ. Here too are placed Azrael, the angel of death or destiny, to whom is committed the care of departed souls; and Esrael, the angel of the resurrection, mentioned above. Subordinate are Monker and Nakir, whose office it is to inquire into the true condition of departed souls on their decease. To every man on earth two guardian angels are assigned. Jin, or genii, are a lower race, formed of grosser fire than the superior orders; they are subject to the passions and appetites of man, propagate their species, and, according to the modern theology of the Arabians, are subject to death.

The heathen philosophers generally agreed with regard to the existence of those intelligences, as is shown by St. Cyprian in his treatise of the vanity of idols, from the concurrent testimonies of Plato, Socrates, Trismegistus, and others; Epicurus being the only philosopher who is said absolutely to have rejected them. In the earliest fragments of the poetry of Greece, we find allusions to the agency of these distinguished beings. Hesiod furnishes no incorrect description of their powers and office:

— a world of holy demons made,
Aerial spirits, by great Jove designed
To be on earth the guardians of mankind;
Invisible to mortal eyes they go,
And mark our actions good or bad below.
The immortal spies, with watchful care preside,
And thrice ten thousand round their charges glide:

No. 265.

They can reward with glory or with gold;
A power they by divine permission hold.

Op. et Dies, i. 246, Cooke's Translation.

Spirits, or demons, were believed by the Greeks to hold a middle rank between the gods and mankind. "All the demons are in a middle state between the gods and mankind," Plato, *in Symp.*: and Plutarch says, "Those seem to me to have solved very many and great difficulties, or doubts, who place the demons between the gods and men." The word demon was generally used in a good sense; great and wise men were reported to hold familiar intercourse with the tutelary agents of the gods. The tutelary genius of Socrates, of Numa, and of Augustus, are well known in history. Sometimes the terms demon and genius appear to have been used by the Greeks and Romans in an evil sense: "Juxta usurpatam penes Græcos loquendi consuetudinem tam sancti sunt demones quam protesti et infidi," says Calcidus. Thus we find the evil genius of Brutus appearing to him the night before the battle of Philippi.

The ancient Persians, according to Mr. Sale, were so learned in the ministry of angels in this lower world, that they assigned them distinct charges and provinces, giving their names to the months, and the days of the months. Thus, as Michael was considered the prince of the Jews, Raphael became the prince of the Persians. Hyde, *Reb. Vel. Pers.* c. 19, 20. The Jews, after their return from the captivity in Babylon, infected by the wisdom of the Chaldean sages, who peopled the air with agencies of this description, began to find numerous names and distinct orders of angels; of which, four principal ones are reckoned. That of Michael the first in order; Gabriel the second; Uriel the third; and Raphael the fourth. In the Apochryphal book of Tobit, the last is made to say, "I am Raphael, one of the seven holy angels which present the prayers of the saints, and which go in and out before the glory of the Holy One." Ben Mariton and other writers speak of ten degrees or orders of angels, anciently acknowledged by the Jews. Calmet, *Dict. Bib.*, affirms that the Jews did not know the name of any angel before the Jewish captivity, there being none mentioned in the books written before that event. From these various sources, the christian fathers received and adopted many strange notions on this subject. Some of them imagined that angels had bodies, of which opinion were Clemens Alexandrinus, Origen, Cæsarius, and Tertullian. Others regarded them as pure spirits, who could assume bodies at pleasure; amongst whom were St. Athanasius, Basil, Gregory Nicene, Cyril, and St. Chrysostom. Very common among them was the heathen notion of a race of beings who were born either from the love of gods or angels for women; or the love of men for goddesses. This they thought to be the meaning of Gen. vi. 2, which, according to some copies of the Septuagint, is said to read, "angels of God." Ecclesiastical writers in the middle ages divided these intelligences into nine orders, constituting three hierarchies. The first including cherubim, seraphim, and thrones; the second, dominions, virtues, and powers; and the third, principalities, angels, and archangels. Hence Milton, in his inimitable use of angels as instruments in the machinery of his "Paradise Lost," has the following passage:

"Hear all ye angels, progeny of light;
Thrones, dominations, principdoms, virtues, powers
Hear my decree."

Similar distinctions have been thought to be sustained by the language of inspiration in such passages as Ephes. i. 21, Col. i. 16, &c. Bishop Horsley, in one of the latest of his sermons, has a passage upon this subject, which we cannot forbear extracting, as an able summary of numerous opinions upon this point. It is from Dan. iv. 17. "This interpretation

of these words (that the watchers and holy ones are principal angels) is founded upon a notion which got ground in the christian church many ages since, and unfortunately is not yet eradicated; namely, that God's government of this lower world is carried on by the administration of the holy angels; that the different orders (and those who broached this doctrine could tell us exactly how many orders there are, and how many angels in each order) have their different departments in government assigned to them; some constantly attending in the presence of God, form his cabinet council; others are his provincial governors, every kingdom in the world having its appointed guardian angel, to whose management it is intrusted; others, again, are supposed to have the custody and charge of individuals. This system is in truth nothing better than the pagan polytheism somewhat disguised and qualified; for in the pagan system, every nation had its tutelar deity, all subordinate to Jupiter, the sire of gods and men. Some of those prodigies of ignorance and folly, the Rabbins of the Jews, who lived since the dispersion of the nation, thought all would be well, if for tutelar deities they substituted tutelar angels. From this substitution, the system which I have described arose; and from the Jews, the Christians, with other fooleries, adopted it."

Authors are divided as to the time of the creation of angels: some will have it to have been before the creation of our world, or even before all ages, that is, from eternity; this is Origen's opinion, who, according to Leontius, held that all spirits, angels, devils, and even human souls, were from eternity. Others hold angels to have been created before the world, but not from eternity. Others, again, maintain that they were created at the same time with our world, but what day is disputed. Theodoret and Epiphanius fix their date from the first day.

The concluding sentence of the narrative of the creation, "Thus the heavens and the earth were finished, and all the hosts of them," would certainly seem to include them among the works of the six days. It is peculiar to Jehovah to have been able to say, "Before the day was, I am He."

Their qualifications are to be inferred from the fact, recorded of them, as ascending in fire, passing through prisons, the doors flying open at their presence, shutting the mouths of lions, smiting tens of thousands of men in a night, and other notable instances of power & power nature recorded in the sacred Scriptures.

Their number is vast, as appears from several parts of the Old and New Testaments, and especially from the term "hosts of heaven." The prophet Daniel represents them as a thousand thousand, and ten thousand times ten thousand; intended no doubt to express an indefinite number, in which the imagination is lost. Of the few facts of their history, it appears, that at their creation the angels were perfect, and lived in heaven, but numbers of them afterwards sinned and were banished to hell. The nature of their crime, though nowhere stated, is thought capable of being inferred from 1 Tim. iii. 6; and as they are reserved for future judgment, the facts of their case may be in analogy to ours. Fallen angels appear to be of different orders, subject to one chieftain more powerful and wicked than the rest, distinguished by the epithet Satan, *diabolos*, a traducer, an accuser, the prince of the power of the air, the god of the world, and the like expressions. He is said to have instigated their rebellion, to have tempted our first parents, to persecute the church, and on account of his subtlety is called the Old Serpent.

The employment of angels is various, depending perhaps upon their different ranks and degrees of capacity. The case of individual preservation, and of the persecution of the

church; the plagues of Egypt, the destruction of Sodom, the delivery of the law, the different appearances of angels during the old dispensation, and other important inferences recorded of them, illustrate this remark; but doubtless, a noble portion of angelic employment is that of unceasing adoration and praise. Their power to suspend the laws of nature, and the astonishing command they assume over the material elements, render it highly probable that they will, according to some intimations of Scripture, be employed in the closing scenes of time—to raise the dead, to attend the last judgment, to purify the universe, to assist in re-forming that fresh and glorious system which St. Peter saw stretched along the perspective of prophecy.

Dr. J. Pye Smith, of Homerton, in his excellent work on the person of Christ, has devoted a section of chapter 4, vol. i. to an inquiry respecting who was the person denominated the Angel of Jehovah? with certain remarkable attributes and ascriptions in the Old and New Testaments. He recites Gen. xvi. 7—13; xxii. 11—18; xxxi. 11—13; xlviii. 15, 16; Exod. iii. 2, 15; xxiii. 20, 21; Ps. xxxiv. 7; Is. lxiii. 8, 9; Zech. iii. 1—4; xii. 9; and Mal. iii. 1; as the most remarkable passages, and thus brings together the principal features of his character as contained in them. "The person described claims an uncontrollable sovereignty over the affairs of men. He has the attribute of omniscience and omnipresence; he uses the awful formula by which the Deity on various occasions condescended to confirm the faith of those to whom the primitive revelations were given; he sweareth BY HIMSELF; he is the gracious Protector, the Redeemer from evil, and the Author of the most desirable blessings; his favour is to be sought with the deepest solicitude, as an enjoyment of the highest importance to the interests of men; he is the object of religious invocation; he is in the most express manner, and repeatedly, declared to be JEHOVAH, GOD, the ineffable I AM THAT I AM: yet this mysterious Being is represented as *distinct* from God, and acting (as the term angel imports) under a divine mission.

"Are there then," asks the enlightened author, "two Jehovahs? Revelation and enlightened reason reject the notion." Three other modes of solution have been proposed: 1. That the angel of the divine presence was some eminent, celestial creature, sent to convey the messages of the Divine will to those who were the immediate subjects of revelation, acting, therefore, on behalf of the Deity, and allowed to *personate* the Deity in the assumption of the attributes and forms of address which are distinctive of him. To this he offers various objections. 2. That the expression is nothing but an Hebraism to denote God himself, or some miraculous token of the Divine presence. This is Dr. Priestley's, and Mr. Belsham's opinion. The phrase "Angel of Jehovah" means either the visible symbol of the "Divine presence, or Jehovah himself." But this decision leaves unaccounted for the very strong attribution of intelligence, will, power, and all personal properties, which it would be perfectly absurd to apply to a visible splendour, or any symbolical phenomenon whatever; and it overlooks the *essential* part of the case, the clear and marked *distinction* between the personal angel and him who sent him. It is this distinction, so widely different from the idea of a symbolical token, which makes the difficulty upon the Unitarian hypothesis. 3. That the being eminently called the Angel of Jehovah is one who is, in certain respects or properties, *distinct* from God; and yet is, at the same time, truly and essentially THE SAME with God! And to this third conclusion he evidently considers the balance of evidence to incline.*

* See Dr. J. P. Smith's Scripture Testimony to the Messiah.

No. XII.—SELF-INSTRUCTOR IN POLITENESS.

IN concluding, as we intend to do with this article, our series of "Self-Instructors in Politeness," we feel it necessary to point out to our readers, that affectation is an insuperable obstacle to real politeness of demeanour and habits. We have recommended not mere seeming and acting, (in the theatrical sense of the latter word,) but the acquisition of the reality of good breeding, and those kindly feelings to which thorough good breeding so mainly owes its birth.

This caution is the more necessary, because it is by no means an uncommon thing to meet with young persons who, sincerely desiring to render themselves agreeable to their associates, take a course calculated to render them diametrically the reverse.

Perceiving that certain tones and gestures become certain extremely pleasant people, they imagine that the same tones and gestures must of necessity become them also. In this supposition they make two very capital mistakes: in the first place they are quite mistaken in supposing that their imitative powers are displayed so very admirably as to put them in the actual possession of the peculiarities they so much admire, or even of a tolerably good imitation of them. It is very rare, indeed, to find even professional mimics who have so perfect a mastery of voice and eye, as to render there "imitations" at all correct. In the second place there is a "fitness of things" in the features and tones of man as well as in the most stupendous marvels of the creation; and that which becomes one man exceedingly, would, even if it could be quite exactly copied, be altogether as much unbecoming the imitator. Education greatly alters natural style; the more salient angularities of individuals become worn down in the great mass of society, so that there is a general resemblance among men. But after all that the most careful training can do, the whole of the native style of an individual cannot be annihilated; and as it is the native style, in general some oddity, that is almost always selected for imitation, the chances of its being ill executed and ludicrous are, of course, very greatly increased. The peculiar gesture or tone which may be admirably adapted to the person or the voice of any one person, is, *ipso facto*, ill adapted for that of any other given person. This, as to all the more striking and obvious points, perhaps none will think of disputing. For example, it will at once be admitted, that when we see in a child of five or six years old the stiff, constrained manner of fifty, joined to a sharp, shrewd, and somewhat snappish as well as very formal style of speech, we invariably feel annoyed, and complain of the child being so "old fashioned," and "so

odd," and so "unchild like." But many who would at once admit a fact so undeniable as this, are themselves guilty of imitating peculiarities, for which their physical, to say nothing of their mental, idiosyncrasies render them just as little fitted as the young child is for giving itself the grave airs of an old man or woman. Even were the imitator and the imitated as precisely alike as "the two Dromios,"* the imitation, to a close and accurate observer, would be both clumsy and unbecoming.

Poor Burns well exclaims:—

"Oh, would some pow'r the giftie gie us
To see ourselves as others see us!"

and our readers may rest satisfied it is after no brief or careless observation of society that we assure them, that few things more directly and certainly tend to make a man ridiculous than the too common, and yet extremely absurd habit of imitating the peculiarities of manner.

We have already said that we intend with this article to close our brief series of "Self-Instructors in Politeness;" and we trust that we shall be allowed, in this one of the hundreds of article in which we have zealously, however feebly, endeavoured to amuse as well as to guide our readers, earnestly to entreat them not merely to distinguish between false politeness and true politeness, but also constantly to bear in mind, that the latter is a real and a very important virtue. Partly as a very condition of our mundane existence, though mainly as a consequence of the perversity of mankind themselves, every member of society, from the very highest to the very lowest, is liable, at the least, to many sorrows and much pain; and to most of us that pain and those sorrows come in very fell and terrible abundance. And is it a light thing, that with the mere tone of our voice, and the mere glance of our eye, we may aggravate pain and sorrow which are already scarcely endurable? Is there not something altogether inspiring and precious in the reflection, that, by a bland tone and a benevolent air, we may soothe the sorrow we cannot relieve, and double the value of whatever relief it is in our power to afford? He who will answer the first question in the affirmative, or the second in the negative, may give up all endeavours at politeness; nature has not intended him for politeness, for that is the aggregate of pleasing grace, conferred by careful training, bestowed upon good feeling and good sense; and he who can so answer, think as he may upon the subject, may very safely take our word for it, that he has neither one nor the other.

No. XXI.—SELF-INSTRUCTOR IN BIOGRAPHY.

SIR PHILIP SIDNEY.

THIS accomplished nobleman, on account of his talents, amiable temper, and elegant manners, was an universal favourite of the age in which he lived. Queen Elizabeth designated him as her Philip, and his tutor thought his office one of such high honour that he desired no greater reward than an epitaph commemorating him as "the tutor of Sir Philip Sidney." The same remarkable testimony was given by his friend and biographer Sir Fulke Greville, on whose tomb was inscribed—"Fulke

Greville, servant to Queen Elizabeth, Counsellor to King James, and friend to Sir Philip Sidney." And the king of Scots, afterwards James I. of England, celebrated his memory in a copy of Latin verses, which he composed on the death of the young hero. Hume says, "This person is described by the writers of that age as the most perfect model of an accomplished gentleman that could be formed, even by the wanton imagination of poetry or

* See Shakspeare's "Comedy of Errors."

fiction. Virtuous conduct, polite conversation, heroic valour, and elegant erudition, all concurred to render him the delight of the English court; and as the credit he possessed with the queen and the earl of Leicester (his uncle), was wholly employed in the encouragement of genius and literature, his praises have been transmitted with advantage to posterity. No person was so low as not to become an object of his humanity."

The delicacy and tenderness of Sir Philip Sidney's poetic genius, displayed in his romance of "*Arcadia*" and "*The Defence of Poesy*," gained for him the appellation of the "*Divine Astrophel*."

His father, Sir Henry Sidney, deputy of Ireland, was a sage and a statesman, possessing great military genius. Sir Fulke Greville says of both parents, that "the clearness of his father's judgment, and the ingenious sensibleness of his mother's, brought forth so happy a temper in their offspring." The political distractions which had torn nearly all the continental states during the reign of Elizabeth, rendered it particularly unsafe both to the persons and morals of Englishmen to go abroad; hence none were allowed to leave the country but merchants, and those intended for a military life, and even they were not permitted to do so without a special license from the queen. On leaving the University, Sidney, although a diligent student and lover of arts, had a great predilection for military glory, and requested the queen's license to absent himself from court. The document affording him the privilege he sought is dated May 25, 1572, and runs thus:—"For her trusty and well-beloved Philip Sidney, Esq., to go out of England into parts beyond seas, with three servants and four horses, to remain during the space of two years, for his attaining the knowledge of foreign languages."

During his study in France, Sidney married the daughter of Sir F. Walsingham, English ambassador to that court, and was made a gentleman of the chamber to Charles IX. He then visited Frankfort, Venice, and Padua.

On his return to England, Sidney became the admiration and delight of the court; and so high an opinion had his sovereign of his talents and prudence, that she did not scruple to entrust him with the responsibility of representing her at the court of Vienna, although at the time of his appointment his age did not much exceed twenty years. Sir Philip Sidney was the youngest ambassador ever sent out from the British government. He gave a full narrative of his embassy in an official letter to his father-in-law, Walsingham, which has been characterised as "a splendid testimony of political address and maturity of genius, far above his years."

The extremely unsettled and troubled state of Ireland, during the reign of Elizabeth, rendered the task of government, which devolved on Sir Philip's father, very troublesome, and even dangerous; he made, though a just and mild deputy, many enemies, and articles of impeachment were drawn up against him. In his son was found a zealous, talented, and successful advocate; and of every charge Sir Henry Sidney was honourably acquitted, chiefly through the instrumentality, perseverance, and genius of Philip.

In the year 1581 the happiness of England had been well nigh sacrificed by the union of the "*Virgin Queen*" with the duke of Anjou, third brother of Charles of France. In consequence of some marks of favour bestowed by Elizabeth on that prince during the celebration of an anni-

versary of her coronation, on November 17, when she actually presented him with a ring from her own finger, the nation took alarm. The most honest of her counsellors dissuaded her from so rash a step; and a Puritan of Lincoln's Inn wrote a passionate book, entitled, "*The Gulph in which England will be swallowed by the French Marriage*," which so incensed Her Majesty, that she caused the man to be condemned as a libeller, and to undergo the sentence of having his right hand cut off. Yet such was the esteem in which the queen was held by her people, and so great was the constancy and loyalty of the man, that, after the executioner had done his office, the sufferer took off his hat with the remaining hand, and, waving it over his head, cried, "God save the queen!" Every effort was made, both by the court and the people, to oppose what was feared to be Elizabeth's settled intention; even the ladies of her own bedchamber took every opportunity of prejudicing her against her intended husband. Still she remained doubtful and irresolute; and it was left for Sir Philip Sidney to turn the scale of hesitation which balanced in the queen's mind, against what would have been a severe blow to the well-being of this country. He indited her a letter, in which he dissuaded her from her present resolution with an unusual elegance of expression, as well as force of reasoning. The effects of this well-timed epistle were happily decisive in settling the pretensions of the French aspirant. Elizabeth was so convinced by Sir Philip Sidney's arguments, that she instantly sent for the duke, and had a long conference with him in private, in which she is supposed to have made many apologies for breaking her engagement. Anjou expressed great disgust at his leaving her, threw away the ring she had given him, and retired from this country with many curses on the mutability of women. During the time he was prosecuting his suit he did not want for advocates to help him with the queen. At the head of his partisans was the earl of Oxford, who was so enraged at the effectual part Sir Philip had played in saving the country from the French marriage, that, on the occasion of some court revels, an altercation took place between them, and the earl applied the term "puppy" to Sidney. A challenge was the consequence; but the queen having been apprised of it, interfered to prevent the meeting, and Sir Philip, incapable of submission, retired from court. In his retreat at Wilton, the seat of his brother-in-law, he employed himself in those literary compositions that have ranked him among the most elegant and tender of our early poets.

The diplomatic and military talents of Sir Philip Sidney had, however, rendered him of too much consequence to the queen and her government to allow of his services being long neglected. He was appointed Governor of Flushing, an honour which lost England her greatest favourite. In the full career, but not having scarcely attained the height of military fame, fell the Marcellus of his age! In a skirmish before Zutphen, during a thick fog, Sidney having one horse shot under him, mounted another, and finding Lord Willoughby surrounded by the enemy, manfully cut his way to that nobleman's rescue, which he succeeded in effecting, and continued the fight till he was wounded by a bullet in the right knee. He fell near a dying soldier, and, although parching with thirst from excessive bleeding, turned away a bottle of water which had been brought him, from his own lips, with these words—"Thy necessity is still greater than mine."

ences. That volcanic eruptions and earthquakes have been frequent in past ages, is manifest by the form and appearance of the earth, and also by the records of history which relate the overthrow of cities, the sinking of whole portions of land on which large lakes have been formed, and the projection of *lava* into the sea, erecting promontories and isthmuses of great elevation and extent. Doubtless some such event occurred in the destruction of Sodom, and the cities of the plain, as related in the sacred volume, and that the adjacent mountains were raised from the level, which then extended to the eastward of those cities, by the breaking forth of a subterranean fire, that, belching out the sulphureous substances of the interior, rained down fire and brimstone on those devoted places and their miserable inhabitants. And why should not the judgment of God be executed in this way, rather than in any unaccountable or incredible manner? There has been a vague opinion entertained that the petrifications of testaceous animals, and other deposits, may have been left upon the mountains by the deluge, as the tops of the highest hills were covered; but such an inundation could only affect the surface at most, and must have left those marine substances on the outside: it could not have insinuated them into the body and to the very centre of the mountains, where they are frequently found. It follows, therefore, that they must have been somehow amalgamated with the composite materials of those mountains, at their original formation. Hence arises the inference that the whole globe on which we live must have been, *ab origine*, covered with water, until that element was divided by the elevation of certain portions of the earth, and precipitated to the lower parts and the fathomless caves that would be opened correspondent with the uplifted hills. Valleys would naturally retain marshy and swampy appearances, until rivers, following the mighty efflux of the ocean, began to drain them of the superfluous fluid; then the remaining moisture and internal heat would become capable of germination, not only of vegetable productions, but likewise the gestation of animal life, even in a degree far more prolific and powerful than at this day. In corroboration of this opinion, we find that the remains of prodigious animals are sometimes found embedded in low grounds and bogs, whose species have long been extinct; and that the earth does not now sustain such as the Mammoth by land, and probably the ancient Leviathan, and others of the *Balmean* tribe of the ocean. Skeletons of these animals have been found of such an amazing size as to bear no proportion with the living animals of the present age, and some of them of a nondescript kind; evidently proving that even in nature's procreative energies a debilitating change has taken effect. Man also has become curtailed in his duration and strength, since the days when "there were giants in the earth." And the doctrine of Lucretius, in his Epicurean philosophy, that the earth grows old, and experiences the sterility and infirmity of declining life, may not be an assertion void of some useful suggestions to the contemplative mind of a true philosopher. However, not to depart from the subject of discussion, it appears from the best and most rational conclusions, both as regards the visible and theoretical data on which to found an hypothesis that shall most satisfactorily describe the original form and state of our globe, that its whole surface was covered with water, in which those shell fishes, and other aqueous appendages that were propagated and formed, are now found in mountains and other parts of *terra firma*; and whose presence there has often puzzled the naturalist and geologist, for which to account, but which seems plain enough on the principle here advanced, that they have been raised from the aquatic bed of the earth where they grew,

and were elevated along with the tumuli that the expansive force of elementary fire has lifted out of the vast profound, and raised aloft to embrace the clouds, and to give vent for the ethereal flame to mingle with its kindred element in the skies.

It may be added by way of corollary to these observations, that the ancient world produced more spontaneously than the present or postdiluvian, for we read in Scripture that men multiplied exceedingly, and yet they appear to have neglected or been ignorant of the methods of agriculture, of planting and sowing, or any other artificial means of improving the soil, or fructifying the earth by tillage. In the family of Noah it is not recorded that husbandry had made any progress beyond the management of the vine, or perhaps only the pressing of the juice from the wild grape; at all events, the Egyptian colonists were ignorant of the use of the plough, until they learned from Mizraim, or Caphtorim, how to turn up the soil and to sow or plant the corn, their hieroglyphical record of which gave rise to the vulgar worshippers of Serapis, in the form of an ox, because that animal had been used to draw the plough and turn up the ground; its figure, therefore, was the representation of that benefit which they derived from the labours of the field, but was mistaken by their ignorant posterity, for the very being that gave them food and plenty in abundance; so that by an apotheosis of erroneous imagination, they made a god of a brute beast. If, in fact, the earth have diminished in fecundity by nature, the art of man to revive and encourage reproduction has more than proportionally increased, and the most barren parts have been made productive by industry and ingenuity. Previous to the invention of ploughing and sowing, men had not in general any located property; they passed their lives in tending flocks, and wandering from place to place, in search of pasture for their cattle; but when they began to cultivate the ground, it was necessary for them to remain to protect the rising crop, to guard it in the growth, and to reap it in maturity, so that they colonized, became national, and remained within the regions where they first settled, and on the lands which they appropriated by right of primeval possession; and this new system of the human condition in a measure dissolved the patriarchal dominion, and introduced a form of government extending its control over the united tribes and families of a whole country. Every thing that we can discover, or by which we can trace the condition of the antediluvian world, affords strong proof of its superior productiveness; and this quality would naturally continue for a long time, in consequence of the lubricated state in which the continuance of the water on its surface had left it, and the action of heat from the subterranean fire with which it was invested; these were the agents, that like the sanguiferous fluid of the human body, full of youthful glow and warmed moisture, gave vigour to the whole constitution of the globe. Time has wasted the adolescent energies of nature, and seems to point at the period when,

"The great globe itself, and all that it inherits,
Shall melt away, and moulder into dust;
And like the baseless fabric of a vision
Leave not a wreck behind."

TEMPERANCE.—To speak of temperance as though it were a virtue, appears to us to be somewhat worse than a mere error. Why, the very beasts of the field are temperate! And what a wallowing and degraded, as well as disgusting, animal is a man, who has indulged his intense love of strong drink! The truth of the matter is, that sobriety is natural; intemperance only a mere and a very vile acquired habit.

BETHLEHEM, THE BIRTH-PLACE OF CHRIST.

THE city of Bethlehem, though now a poor, decayed place, was once a city of some consequence; remarkable as the native place of King David, and still more highly honoured as the scene of our Saviour's birth, according to the predictions of the prophets. As there was another Bethlehem in the land of Zebulon, this city was sometimes called Bethlehem Ephrata, or Bethlehem Judah, from its belonging to that tribe. It enumerates among its eminent natives, besides those illustrious names already mentioned, Abijah, a judge of Israel, Elimelech, Boaz, Obed, Jesse, and Matthias the apostle. To this city it was likewise that Naomi returned with Ruth out of the land of Moab.

Bethlehem lies about six miles south-west from Jerusalem, and still exhibits many remains of antiquity, highly interesting as connected with the events recorded in sacred history. Some of these bear evident marks of being genuine, while others are doubtful or plainly false. Among the former may be reckoned the pools, said to have been constructed by Solomon, three in number; lying so disposed, one below another, that the waters of the uppermost run into the second, and those of the second into the third. At some distance above them is the celebrated *fons signatus*, from whence they derive their supplies; and it is so called from a tradition that Solomon shut up this fountain, and sealed the door with his own signet, that the water might be reserved for his own drinking.

Whatever truth there may be in this tradition, the situation of this fountain affords great facilities for it, as the springs rise under ground, and have no other approach than a hole like the mouth of a well. On descending through this hole, you come to a vaulted room, fifteen paces long and eight broad, within which is another, rather less: both are covered with handsome stone arches, supposed to have been constructed in the time of Solomon. From these springs, the water is conveyed by a subterranean channel to the pools; and by another channel composed of brickwork, part is conveyed to the city of Jerusalem. As for the gardens, if the spot assigned them be the true one, Solomon must have chosen it as affording an opportunity of displaying the effect of wealth and power; as none could be more unfit for horticultural purposes, the ground being rocky and barren; but the hanging gardens of Babylon, the rock of Malta, the palace and grounds of St. Ildefonso, and the Escorial in Spain, plainly prove that absolute power, united with almost boundless wealth, can create a paradise in a desert, and cause flowers to bloom where nought before was seen but russet sterility.

Another relic of antiquity is a well, or rather cistern, of rain water, said to be the well of which David longed to drink, and the water of which three mighty men of his army procured for him at the hazard of their lives. But if this be the well, Bethlehem must be much diminished in extent since David's days; as it was then at the gate of the city, but is now at some distance from the town.

From the pools, an aqueduct, or rather channel laid on the surface of the ground, made of large blocks of a coarse kind of marble, perforated through the centre, conveys water to Jerusalem. It is said to have been the work of Solomon, and was so solidly constructed, as to have been likely to bid defiance to the corroding in-

fluence of time. But the Turks have found means to destroy the greater part, so that only a few fragments now remain.

While Bethlehem is thus interesting, as presenting memorials of ancient worthies, it is rendered a thousand times more so by having been the birth-place of our Lord and Saviour Jesus Christ; for though the places now shown as having been the scene of some remarkable occurrences in his life, are probably not the true ones, we know that some part of Bethlehem witnessed them, and that its precincts are hallowed ground.

The Greeks, Latins, and Armenians, have each a convent at Bethlehem, so situated, that they all communicate, by a door, with the Church of the Holy Manger. This church or chapel is of great antiquity, and is said to contain the very manger in which Christ was laid, and to stand on the very spot once occupied by the stable. On the pavement, at the foot of the altar, is the representation of a star in marble, which corresponds, according to tradition, with the point of the heavens where the miraculous star which appeared in the east became stationary. The place where the Virgin is said to have brought forth her first-born son, is in the crypt under the church; and is indicated by a white marble slab incrustured with jasper, and surrounded with silver rays: around it are inscribed these words,—

“ Hic de Virgine Maria,
Jesus Christus natus est.”

At a little distance, sunk two steps below the level of the crypt, is the manger—a block of white marble, hollowed out for the purpose; and two paces further is an altar to point out the spot where Mary sat, when she presented Jesus to the wise men from the East.

The church is adorned with paintings of the Italian and Spanish schools, representing the Virgin and the Child, after Raphael; the Annunciation; the Adoration of the Wise Men; the Visit of the Shepherds; and many other things connected with the history of that great event. Thousands of pilgrims visit this sacred spot; and it is almost impossible to contemplate the different parts of it, without sensations of mingled awe and veneration.

Besides the Chapel of the Manger, they show at Bethlehem the chapels of St. Joseph, the reputed father of our Lord,—of St. Jerome, St. Paula, and Eustechina. The last two were mother and daughter, who retired with Jerome to Bethlehem, to spend their lives in acts of piety and devotion. Not far from the village is shewn the field where the shepherds were watching their flocks by night, when the heavenly hosts announced to them the birth of a Saviour. A little to the right is the village where they are said to have dwelt; and near is a ruined nunnery, founded by St. Paula, where she died.

But while we feel great interest in visiting places so memorable, it is shocking to observe the height to which superstition is carried by the ignorant and prejudiced who resort thither. Within a few yards of one of the convents is a grotto, revered because there, as tradition reports, the Virgin Mary hid herself and her babe from the malice of Herod, for some time before an opportunity offered for escaping into Egypt.

As this grotto is hollowed out of a chalk rock, it is white; but the people in general believe that this whiteness is not natural, but that it was occasioned by some of the Virgin's milk, which fell from her breast while suckling the holy child. To this chalk, therefore,

they attribute the miraculous power of increasing women's milk; and it is taken for that purpose by the wives of Turks and Arabs, as well as Christians.

TUMULI, OR BARROWS.

BARROWS, in ancient topography, were artificial hillocks or mounds, met with in many parts of the world, intended as repositories for the dead, and formed either of stones heaped up, or of earth.

Of these mounts, Dr. Plott takes notice of two kinds in Oxfordshire; one placed in the military ways, the others in the fields, meadows, or woods; the first sort, doubtless, of Roman erection, the other more probably erected by the Britons or Danes. We have an examination of the barrows in Cornwall by Dr. Williams, in his *Phil. Trans.* No. 458, from which we find they are generally composed of foreign or adventitious earth, that is, such as does not rise on the place, but is fetched from some distance. Monuments of this kind are also very frequent in Scotland. On digging into the barrows, arms have been found, in some of them, made of calcined earth, and containing burnt bones and ashes; in others, stone chests, containing bones entire; in others, bones neither lodged in chests, nor deposited in urns. These tumuli are round, not greatly elevated, and generally, at their bases, surrounded by a fosse. They are of different sizes; in proportion, it is supposed, to the greatness, rank, and power of the deceased person. The links of Skail, in Sandwick, one of the Orkneys, abound in round barrows. Some of them are formed of earth alone, others of stone covered with earth. In the former was found a coffin, made of six flat stones. They are too short to receive a body at full length: the skeletons found in them lie with the knees pressed to the breast, and the legs doubled along the thighs. A bag, made of rushes, has been found at the feet of some of these skeletons, containing the bones most probably of another of the family. In one were to be seen multitudes of small beetles; and as similar insects have been discovered in the bag which contained the sacred Ibis, we may suppose that the Egyptians, and the nation to whom these tumuli belonged, might have had the same superstition respecting them. On some of the corpses interred in this island, marks of burning were observed.

The ashes deposited in an urn, which was covered on the top with a flat stone, have been found in the cell of one of the barrows. This coffin or cell was placed on the ground, then covered with a heap of stones, and that again cased with earth or sods; both the barrow and its contents evince them to be of a different age from the former. These tumuli were in the nature of family vaults; in them have been found two tiers of coffins. It is probable, that on the death of any one of the family, the tumuli are opened, and the body interred near its kindred bones. Ancient Greece and Latium concurred in the same practice with the natives of this island; Patroclus, among the Greeks, and Hector, among the Trojans, received but the same funeral honours with our Caledonian heroes; and the ashes of Dercennus, the Laurentine monarch, had the same simple protection. The urn and pall of the Trojan warrior might, perhaps, be more superb than those of a British leader; the rising monument of each had the common materials from our mother earth. See Homer's *Iliad*, xxiv. 1003. The Grecian barrows, however, do not seem to have been all equally simple. The barrow of Alyattes, father of Cræsus, king of Lydia, is described by Herodotus as a most superb monument, inferior only to the works of the Egyptians and Babylonians. It was a vast mound of earth heaped on a

basement of large stones by three classes of people; one of which was composed of girls, who were prostitutes. Alyattes died, after a long reign, A.A.C. 562. Above a century intervened; but the historian relates, that to his time five stones, (*ovpoi*, termini or stelæ,) on which letters were engraved, had remained at the top, recording what each class had performed; and from the measurement, it appeared that the greater portion was done by the girls. Strabo, likewise, has mentioned it as a huge mound, raised on a lofty basement, by the multitude of the city. The circumference was six stadias, or three-quarters of a mile; the height two plethra, or 200 feet; and the width thirteen plethra.

It was customary among the Greeks to place on barrows, either the image of some animal or stelæ, commonly round pillars with inscriptions. The famous barrow of the Athenians in the plains of Marathon, described by Pausanias, is an instance of the latter usage. An ancient monument in Italy, by the Appian Way, called the Sepulchre of the Curiatii, has the same number of termini as remained on the barrow of Alyattes; the basement, which is square, supporting five round pyramids. Of the barrow of Alyattes, the apparent magnitude is described by travellers as now diminished, and the bottom rendered wider and less distinct than before, by the gradual increase of the soil below. It stands in the midst of others, by the lake Gygæus, where the burying-place of the Lydian princes was situated. The barrows are of various sizes; the smaller made, perhaps, for children of the younger branches of the royal family. Four or five are distinguished by their superior magnitude, and are visible as hills at a great distance. That of Alyattes is greatly super-eminent; all of them are covered with green turf, and retain their conical form without any sinking in of the top.

Barrows are also found in great numbers in America. These are of different sizes, according to Mr. Jefferson, some of them constructed of earth, and some of loose stones. That they were repositories for the dead, is obvious, but on what particular occasion constructed, is matter of doubt. Some have thought they covered the bones of those who fell in battles, fought on the place of interment. Some ascribed them to the custom said to prevail among the Indians, of collecting, at certain periods, the bones of all their dead, wheresoever deposited at the time of death. Others, again, supposed them the general sepulchres for torons conjectured to have been on or near these grounds; and this opinion was supported by the quality of the lands in which they are found, those constructed of earth being generally in the softest and most fertile meadow grounds on river sides; and by a tradition said to be handed down from the aboriginal Indians, that when they settled in a town, the first person who died was placed erect, and earth put about him, so as to cover and support him; that when another died, a narrow passage was dug to the first, the second reclined against him, and the cover of earth replaced, and so on.

(To be continued.)

THE DEAD SEA, OR THE LAKE OF ASPHALTITES.

In travelling over the land of Judea, extraordinary appearances every where present themselves; the burning sun, the towering eagle, the barren fig-tree,—all the poetry, all the pictures of Scripture, are here; and to a lively imagination, every name commemorates a mystery, every grot proclaims the future, every hill re-echoes the accent of a prophet. God himself has spoken in these regions: dried up rivers, riven rocks, half-open sepulchres, attest the prodigy: the Desert still appears mute with terror, and you

would imagine that it had never presumed to interrupt the silence since it heard the awful voice of the Eternal. The Dead Sea is supposed to occupy that spot upon which Sodom formerly stood, and which, according to Strabo, was destroyed by an earthquake. Its waters are particularly salt; and on its surface floats, in different parts, a large quantity of asphaltics, which being thrown up to the surface in a liquid state, by subterranean fires, becomes condensed by the superficial coldness of the water, and is then collected by the Arabs, and forms a considerable article of trade.

The atmosphere round this celebrated sea was remarkably clear and serene, and we saw none of those clouds of smoke, which, by some writers, are said to exhale from the surface of the Lake Asphaltés, nor from any neighbouring mountain. Every thing about it was, in the highest degree, grand and awful. Its desolate, though majestic features, are well suited to the tales related concerning it, by the inhabitants of the country, who all speak of it with terror, seeming to shrink from the narrative of its deceitful allurements and deadly influence. "Beautiful fruit," say they, "grows upon its shores, which is no sooner touched than it becomes dust and bitter ashes." In addition to its physical terrors, the region round is said to be more perilous, owing to the ferocious tribes wandering upon the shores of the lake, than any other part of the Holy Land. A passion for the marvellous has thus affixed for ages false characteristics to the sublimest associations of natural scenery in the whole world; for although it is now known, that the water of this lake, instead of proving destructive to animal life, swarms with fishes; that instead of falling victims to its exhalations, certain birds make it their peculiar resort; that shells abound upon its shores; that the pretended fruit containing ashes, is as natural and as exquisite a production of nature, as the rest of the vegetable kingdom; that bodies sink or float in it, according to the proportion of their gravity to the gravity of the water; that its waters are not more insalubrious than those of any other lake; that innumerable Arabs people the neighbouring district:—notwithstanding all these facts are now well established, even the latest authors, by whom it is mentioned, continue to fill their descriptions with imaginary horrors and idle phantoms, which, though less substantial than the "black perpendicular rocks around it," cast their lengthened shadows upon the waters of the Dead Sea.

Our minds were much gratified in beholding a prospect so different from what we had been led to expect; and, with a feeling of unusual respect and admiration, we approached in silence the waters of the Lake Asphaltés. Wishing to see the Jordan where it flows into the Dead Sea, and having therefore broken up our camp, we proceeded to cross this inhospitable country over a sandy plain; and perceived at the bottom of a ravine, what at first appeared to be undulating sand; but which, upon a nearer inspection, we found was a languid, yellow stream. This then was the Jordan! that river so celebrated in Jewish history.

CARLIST WAR IN SPAIN.

(Continued from p. 434.)

In the mean time the hostile operations of the Carlist army were considerably extended. Hitherto the war had principally raged in Navarre, Empuscoa, and Biscay; it had now reached Catalonia, Arragon, and Valencia. This might be attributed to the failure of all attempts against the Carlists in the former provinces, which encouraged their friends to bestir themselves in the cause in other parts of the kingdom. In the last named districts, the Carlists showed themselves in detached bands, the only object of whose irregular and rapid attacks, seemed that of giving employment to the

Queen's troops, and consequently preventing them from attacking the main body of the army in Navarre, of which, since the death of Zumalacarguy, Don Carlos had himself taken the command, to stifle the pretensions and intrigues of his other generals.

By the end of August the English recruits at Santander were sufficiently drilled to take the field, and formed a legion of nearly 9,000 men, commanded by General Evans. They were first brought into action in the neighbourhood of St. Sebastian. On the 30th of August, part of them attacked some advanced positions of the Carlists, accompanied by the irregular troops in the Queen's service, commanded by Taurigeni, or El Pastor.

The object of this was to reconnoitre the enemy's entrenchments. On a particular part of the heights, the Carlists abandoned their works, inducing the Christinos and British auxiliaries to advance to a favourable position for being attacked, and they were obliged to retreat before the insurgents, with some loss. This the first affair, in which the mercenaries were employed, was unsuccessful in consequence of a want of the merest military foresight. About the same time, as if to balance this repulse, Cordova, at the head of the Queen's troops, obtained a slight victory at Los Arcos.

Don Carlos now commenced strengthening his army in Biscay, and threatened Bilbao with a fresh attack. His views were however intercepted; for the Queen's army of reserve, under Generals Espartero and Espeleta, entered the town; while a greater part of the auxiliaries were transported thither, by sea, from Santander and St. Sebastian. The Carlists ventured no further than maintaining their position in the neighbourhood, which induced Espartero, and Espeleta to imagine the presence of their troops consisting of 15,000 men, no longer necessary. They therefore commenced their march to the southward, on the 11th September. Of this movement the rebel general was informed, and marched during the night to the village of Arrigoriaga, about a league from Bilbao, through which the Queen's troops would be obliged to pass. On their approach, the Carlists opened a smart fire, while the marching troops determined to force a passage. They were, however, thrown into confusion, and fled back to Bilbao. Having obtained assistance of some British battalions, they returned to the attack. Both the Christinos and their reinforcement were obliged to give way, some suffering severely while crossing a narrow bridge in the rear, others from being compelled by the Carlist cavalry to take to the river itself. Though of the Queen's troops, 300 men were wounded, and 100 taken prisoners, few were killed; as throughout the war, it seems by the Carlists to have been acted upon as a principle, not easily accounted for to fire from long distances. From this unsuccessful movement a most important object resulted to the Carlists. Direct communication between the main body of the Queen's army and the garrison at Bilbao was thus effectually cut off. In October, however, a portion of the auxiliaries, by taking a circuitous route, managed to join Cordova, who had got entangled amongst the enemy at Vittoria, after a good deal of skirmishing; and these united forces maintained a position on the Ebro, till the end of the year, without undertaking any active operation.

The Carlists of Guipuzcoa continued the siege of St. Sebastian without much prospect of reducing so strong a fortress; but they took a small sea-port in the neighbourhood, called Guetaria.

At the end of November a body of Portuguese troops crossed the frontier, to the amount of 6,000 men, but did not bear any part in the events of the year

(To be continued.)

entire piece. The inscription is on the frieze. Having entered the portico, the great door merits attention for its noble and majestic appearance; the architrave consists of only three pieces of fine African marble; the door is of bronze and of antique sculpture, but does not seem to have been originally designed for this place. On entering the temple, which is quite round, you are struck with its apparent smallness; but this deception must arise from its proportions, being as wide as it is high; it is covered by a dome open in the centre, whose compartments must have made a beautiful appearance when plaited with gilt bronze,

but at present there is not the smallest vestige remaining of any metal. Opposite to the door is the great altar, and on each side of that four other altars. The whole of the inside is handsomely fitted up. The pavement is of porphyry and giallo antico, bordered with other precious marbles. This noble building is at present converted into a modern church, being called La Rotunda, or Santa Maria ad Martyres, to whom it is dedicated, and is the resting-place of several famous artists, as Raphael, Penino del Vaga, Annibale Carracci, Taddeo Zuccheri, Flaminio Vacca, and the celebrated musician Corelli.



THE NEW HOUSES OF PARLIAMENT.

It has been very justly observed by one of the ablest of our contemporaries, that there has never, since the rebuilding of St. Paul's, been a nobler opportunity than there is at the present time, for the erection in our metropolis of a truly national building, worthy alike of our wealth and of our character as an enlightened people. Singularly enough, we owe the present, as we owed the former, opportunity to the destroying element, fire. Shall we turn the one calamity, as we did the other, into a benefit; making even loss advantageous? We think so; and most probably our readers will think with us, when they shall have read the brief description we shall give them of the accompanying design, which represents "the basis" of the new building; and which is in the highest degree creditable to its able author, Mr. Barry, as is its adoption to the Committee.

The river front has an exceedingly noble appearance. Its great loftiness of elevation may, at first sight, seem an objection, but that is easily met, the loftiness being chosen for the express purpose of concealing the hall and the adjoining buildings. The extreme simplicity of the

river front has likewise been condemned, it being contended that in so extended a range of building such simplicity has a somewhat monotonous and fatiguing effect. This objection, too, we think is futile. It is to be remembered that the style of even a palace, a building only of residence for royalty, may be very considerably too florid, and thus lose in actual magnificence, and thereby become less in keeping than it should be. Now, as it seems to us, Mr. Barry has very admirably provided for the splendour as well as for the appropriateness of the new building. He has not forgotten that if it is to be the nation's palace, it is also to be the nation's place of business. For splendour he has sufficiently cared in other features of the building; in the nobly simple river front he has looked well to the important object of having his work in good keeping in all its parts. Along the whole length of this front there is to be a handsome terrace, exclusively devoted to the use of the members of both Houses; and if this portion of the design be duly followed out, we may at last see our Thames ornamented with a terrace worthy of its banks.

The entrances to the Houses are so designed by Mr. Barry as to be wholly independent of each other. That designed for the use of Majesty is a tower, which will group admirably with the Abbey, and will have on that side as regal a magnificence as the river front has, in our opinion, a faultless simplicity. The upper stories of "the King's Tower" are to be adapted to the care of important state papers; the tower portion forming a truly magnificent entrance, exclusively devoted to the use of the King on occasion of his visiting the Parliament.

The two Houses of Parliament, properly so called, are very judiciously placed in the centre of the whole building. They are to the utmost possible extent freed from contact with other portions, yet, at the same time, provided with all possible facility of ingress and egress for the members. On either side of the Houses are external corridors, communicating with the ways to the member's seats; an arrangement which will allow the House to be very quickly cleared, when occasion may require, and which will greatly tend to expedite, what it is well known is very much wanted, a better mode than at present exists of taking the divisions.

Accommodation is, in each House, to be provided for reporters, whose seats will be at the same end as the bar, and only so much elevated above the floor, as will enable them to see and hear all that passes in every portion of the House. In the Lower House there are, also, to be two rows of seats for visitant members of the other House: these seats are so arranged that while the visitors can see and hear whatever may pass, they are effectually prevented from being counted among the members during divisions. While Mr. Barry's own plans are of the most commodious and extensive description, he has too much good taste to omit the preservation, as much as possible, of the venerable work of a former day; and he therefore proposes to restore the cloisters, the crypt, and St. Stephen's Chapel, upon a level with which last named will be the two Houses. In Westminster Hall but trifling alteration will be made.

The plan of Mr. Barry, whether for external appearance, for internal commodiousness, or safety from fire, seems to us to be as nearly as possible perfect. We perceive, however, that his plan is spoken of only as the "basis" of the proposed new buildings. Some trifling alterations in detail may, perhaps, be advantageously made; but there are two points on which we hope that those who have the necessary power, will sternly refuse to admit of any tampering; and unless we are very greatly mistaken, it is upon those very points that bad taste and a mistaken parsimony are most likely to busy themselves: we allude to the King's tower, and to the river front. Let not a beggarly economy be allowed to mar the splendour of the design of the former, or a false taste to prevent the adoption of the beautiful simplicity of the latter. We shall look with great anxiety for the final revision of Mr. Barry's plan.

The estimated expense is over eight hundred thousand pounds; and it is most probable that the actual expense will be rather over than under a million. On this point our able contemporary, the "Spectator," well remarks, "Let us not spoil this building for the sake of saving money. It will be several years about, so that the outlay will be gradual. The people will not feel it; and we are very sure that they will not grudge it."

NATIONAL CHARACTERISTICS.

VARIOUS families of the same race frequently have various characters impressed upon and commingled with their ori-

ginal and inherent ones, from the influence of external causes. The most influential of these are climate, soil, and position. People who are natives of a sultry region seem to be, for the most part, enervated by it; and are marked by an indolence and want of physical energy strongly contrasted with the activity and industry exhibited by the natives of more temperate climes. The natives of the most sultry portions of Africa and Asia strongly illustrate this remark. Where the heat of the climate is less oppressive, the physical energies of the people are greater than in the sultry regions, but are still very inferior to those of the natives of temperate climes. But, while sultry climates seem to diminish the mental as well as physical capabilities of their natures, it is very observable that warm climates, though not so favourable to the physical powers as more temperate ones, are, notwithstanding, much more so to the imaginative powers. There is in the natives of such countries a fervour and passionateness of feeling, and a warmth and liveliness of imagination, highly favourable to the cultivation of poetry and music. This is exemplified by the Persians, and even by the greater portion of the Arabians. In the temperate climates, the feelings of the inhabitants are less intense, and their imaginations less vivid and prolific; but, in the same proportion, their bodily strength is greater, and more lasting, and they have a much clearer judgment, a profounder sense, and greater patience, industry, and perseverance. A comparison of what has been formerly said of the southern and of the middle and northern states of Europe, will very strikingly exemplify this position. It has been stated, and apparently with very great correctness, that no climate is favourable to the perfection of the human powers, bodily or mental, in which the oak cannot be reared in the natural atmosphere.

Accordingly, when we advance towards the polar circles, we find the people ignorant, indolent, and abject. Their growth of body and powers of mind seem to be checked and nipped by the severity of their wintry climate. Confined, by the dreary gloom and biting blasts of their frozen regions, to their miserable and filthy huts, during a very large portion of their lives, they acquire a carelessness, stupidity, and sloth, in exact consonance with their extreme and disgusting filthiness of person, apparel, food, and manners. The Laplanders, Greenlanders, Esquimaux, and Samoides, are striking evidences of this remark. The last-named people are more particularly so.

The nature of the soil of a country is not less influential upon the manners and character of the inhabitants than that of its climate. Where the soil of any place is exceedingly fertile, the inhabitants are usually characterised by proportionate indolence. The absence of incitement to industry and activity begets a slothful inclination, which at length becomes rooted into their very nature, and strongly marks and degrades their character. Their indolence and inactivity are doubly injurious to them; for they equally prevent them from acquiring that hardness of body and enterprising spirit by which nations less profusely favoured by nature are usually distinguished. The chief exemplifications of this assertion are to be found in the characters of the natives of Hindostan and Turkey, and the most fertile nations of Africa; and, in a minor degree, in those of Portugal and Italy. Where the soil of the country, on the other hand, is by nature comparatively barren, and the wants of the country can only be supplied from it by skill and toil, we almost always find the native inhabitants hardy, industrious, and moral. Necessity makes them industrious, and industry makes them hardy, and thus deprives them of the chief and most powerful incitements to vice and sensuality.

The consequence is, that though less indebted to the direct bounty of nature, they ultimately are more valuably and more extensively benefited by her; and the exertions upon which her apparent unkindness puts them, render them more wealthy, more moral, and more civilized, than those nations who are accustomed to depend so implicitly upon natural advantages that they become incapable of helping themselves. In exemplification of this argument, we need only compare the natives of the bleak and barren hills of Switzerland with the effeminated and sensual dwellers among the fertile fields and spicy groves of Hindostan. Even between the hardy Scotch and the indolent and superstitious natives of Italy, nearly the same difference of character is observable. The former are not merely comfortable, but even wealthy; while the latter, with the greatest possible advantages of soil and climate, are, for the most part, filthy and slothful as individuals, and are exceedingly poor and contemptible as a nation.

But probably the most striking example of the ultimate good resulting to a people from the original niggardliness of nature is afforded by the Dutch, or natives of Holland. This country, of which many portions are absolutely retrieved from the ocean, and of which the whole would speedily become the prey, but for the art and industry of the inhabitants, is remarkable for the morality, cleanliness even to excess, industry, and comfort of its natives. They have an extensive commerce; beautiful pasturage; canals running in all directions, and literally crowded with craft loaded with costly freights; and are courted and respected by the most powerful and wealthy of the European states: yet nothing but their skilfully contrived and vigilantly preserved dykes, stands between them and destruction by the overwhelming rush of the ocean! Contrast this country with Italy; and it will speedily be seen that spontaneous luxuriance of soil, and advantageous position, are rather inimical than favourable to morals, wealth, and happiness.

The most advantageous position is that which gives to the inhabitants the greatest proximity and most ready access to the sea coast. The natives of inland countries, more especially if their soil be to any considerable extent spontaneously productive, are destitute of all spirit of enterprise and incitement to exertion. Content with the abundance with which nature periodically furnishes them, they have no desire to leave the spot of their nativity; but prefer to grovel there, in ignorance, squalidness, and idleness, accounting no luxury so great as perpetual indolence—no misfortune so dire as the necessity for making exertions or enduring privations. How different the character of those people who dwell on sea coasts, and especially in islands! Indeed, we would not go back to the times which are past, and to which we can only refer through the medium of history. The present condition of our own beautiful and beloved island, compared with that of Austria, and some of the inland parts of North America, will abundantly supply us with proofs of our position. How far the native and inherent characters of nations are influenced and wrought upon by physical causes, the foregoing examples will afford sufficient data for ascertaining with all desirable correctness.

THE INQUISITION.

CHIEF among all the benefits mankind are deriving from their vast and miraculous increase in knowledge, is the almost utter absence, in modern times, of that bale-

ful spirit of persecution which, in past ages, led mankind literally, to use the words of a modern poet,—

“To hope to merit heaven, by making earth a hell.”

In more than one portion of Europe, the giddy multitude, listening to evil and interested teachers, are clamouring for change still, and ever “more change!” Pity that those who thus clamour cannot be taught the wide and important difference between modern rule and ancient tyranny! Pity that they will not, now and then, sit down calmly, and with a predetermined impartiality, reflect upon the infinitely greater charity of judgment and mercy of infliction which are now exercised towards the veriest felons, than formerly were shown to him who was unfortunate enough, no matter upon how abstract and absolutely non-essential a point, to think differently from the majority of those among whom he lived; and who, to his independence in thinking, added the moral honesty and courage to make his thoughts known. Oh! men of really free and liberal nations,—men who, did you only know how much cause you have for happiness, would be happiest among the happy;—oh! men of the truly great and free nations of the time in which it is your fortunate lot to live,—remember

“The starry Galileo and his woes!”

remember the myriads who, for testifying their constancy in the faith that was in them, were quite literally baptized in blood and purified by fire!

We have been led to make these reflections by having accidentally taken up a “History of the Inquisition,” from which, for the present, we can only afford room for the following extract. At a future time we shall probably recur to the subject, which has collateral points of interest far greater than at first sight may present themselves:—

“The unhappy prisoner being seized by the executioners of the Inquisition, whose countenances and figures are concealed by black masks and long black cloaks, is stripped naked to his drawers. He is then laid upon his back on a kind of stand, elevated a few feet from the floor. The prisoner’s limbs being stretched out, ropes are wound round his arms and thighs, and these cords being passed under the stand, through holes made for the purpose, are all drawn tight at the same instant of time by the executioner.

“It is easy to conceive that the pains which immediately succeed are intolerable. The ropes being of small size, cut through the prisoner’s flesh to the bone, making the blood gush out from the several parts which experience their pressure at the same time. When the prisoner persists in asserting his innocence, this cruel operation is repeated as often as his frame can endure it; and a physician and surgeon attend, who often feel his temples, lest he should expire under the torture, and these wretched tools of priestly tyranny so thoroughly imbibe the spirit of their employers, that they do not scruple to tell the sufferer, that should he die under the torture, he would be guilty, by his obstinacy, of self-murder.

“In all this extremity of anguish, while the tender frame is tearing as it were in pieces,—while in every nerve it feels the sharpest pangs of death, and the agonized soul is just ready to burst forth and quit its wretched mansion,—the Romish ecclesiastics who preside as ministers of the Inquisition have the obduracy of heart to look on without

emotion, and calmly to advise the poor distracted creature to confess his imputed guilt, in doing which they tell him he may obtain a free pardon and receive absolution.

"At last, when the prisoner, from the intensity of his anguish, the stoppage of the circulation, and the loss of blood, faints away, he is unbound and carried back to his dungeon, where he is recovered from his swoon to anticipate new tortures from the hands of his blood-thirsty persecutors.

"We shall close our notice of this diabolical tribunal for the present, with an account of one of its illustrious victims—Lady Joan Bohorquia, wife of the eminent Francis Varquies, Lord of Higuera. Her sister, Mary Bohorquia, a young lady of great piety, who was afterwards burnt for her profession of the Protestant faith, having been forced by the extremity of torture to confess that she had several times conversed with her sister Joan, concerning the doctrine for which she now suffered; she was apprehended by the Inquisition. Being, however, six months gone in pregnancy, she was treated with tolerable kindness until the birth of her infant. But eight days after her delivery they took the child from her, and putting her into close confinement, they subjected her to the same rigorous treatment as the other prisoners. The only outward comfort which the unhappy Joan now enjoyed was the society of a pious young woman, who was afterwards burnt by the Inquisition for her religion. This young creature was, on a certain day, dragged out of her dungeon to the torture upon the rack, and returned from it so shaken, and all her limbs so miserably disjointed, that when she lay upon her bed of rushes, it rather increased her misery than gave her rest, so that she could not turn herself without excessive pain. In this condition Bohorquia endeavoured to comfort her mind with great tenderness. But the object of her sympathy had scarcely begun to recover when Bohorquia herself was carried out and tortured with such diabolical cruelty on the rack, that the ropes cut into the very bones of her tender arms, thighs, and legs; and in this manner, the blood gushing from her mouth in great quantities, she was remanded to her comfortless cell, where she expired eight days after.

"The inquisitors, however, could not procure sufficient evidence of her supposed guilt; and as the rank and celebrity of this unfortunate lady obliged them to give some account of her to the people, in the first act of triumph appointed after her death, they commanded her sentence to be pronounced in these words:—

"Because this lady died in prison, and was found to be innocent upon inspecting and diligently examining her cause; therefore the holy tribunal pronounces her free from any further process, doth restore her both as to her innocence and reputation, and commands all her effects, which had been confiscated, to be restored to those to whom they of right belong, &c.

"Thus, after these inhuman butchers had murdered their hapless victim, the only reparation which they made to her and her family was, the reluctant admission that she did not deserve any of those cruelties under the pressure of which she died."

making their fellow-creatures as miserable as they possibly can, by telling them that this world of ours is a "vale of tears," and that there is but little or no happiness to be found in it. We deny it; and, if we had our will, we would have all such canting hypocrites punished for daring to utter so outrageous a blasphemy. The only excuse for the knaves is, that they may be afflicted with a mental obliquity of vision, and cannot see more than one side of a question at once; and that, unfortunately, is the worst. We have ourselves suffered as much trouble and calamity as most people, if not more; but, in spite of all, we boldly contend that there is more of real happiness in the world—more of the spirit of good in things evil—than is generally imagined; and whatever deficiency there may be, is chiefly of our own creation. The very persons who would promulgate this miserable doctrine, are themselves much happier than they imagine; for they derive a great satisfaction (though certainly it is not to their credit) in making their fellow-creatures painfully sensible of all the unavoidable suffering and unhappiness which human nature is really exposed to. But let them pass—we don't like such company.

It is universally acknowledged, that there is no evil without some attendant good necessarily resulting from it; but the misfortune is, that almost every body will insist upon fixing their thoughts on the evil, and forgetting the consequent good. A man who, either through his own folly or some unavoidable misfortune, has suffered for a time extreme poverty and privation, will remember the mental anguish and bodily suffering he endured, but he will entirely forget the delight he experienced when, either by his own exertions or some lucky accident, he was again restored to his wonted comfort and prosperity. In sickness, we think much of the pain and discomfort we undergo, but forget the pleasure we derived from the care and attentions of those who kindly administered to our wants, and soothed us during our suffering. There are, certainly, extreme cases, to which our argument does not apply; but these are exceptions, and therefore do not hold good against us.

Perfect happiness seems, at present, to be beyond the grasp of human beings; but the moral world is still in a very infantine state, and it is impossible to speak, with any thing like certainty, of the effect which may in time be produced by the cultivation of our mental and moral nature. We are, as yet, mere children in wisdom; and, in our pursuit of happiness, we grasp at the shadow and neglect the substance, being entirely led away by false appearances. Happiness does not consist in the attainment of any one particular object, but depends entirely on the capability we possess of deriving a gratification from the innumerable objects and occurrences attendant on our existence. To prove this fact, let us instance the possessors of power and wealth; and, to show most forcibly the soundness of our argument, we will take the case of royalty itself, and appeal to the common sense of our readers, whether kings are to be placed on a par, in point of happiness, with even the most humble of their subjects. And why not?—simply because they have been so completely the children of pleasure and luxury, that they have lost all capability of further enjoyment; and their minds have been so weakened by sensual gratifications, as to be utterly incapable of that active exercise and energy which form the source of permanent and increased delight. Let us go a step

HAPPINESS.

THERE are some whining people, who take a delight in prowling about with long faces and sorrowful looks,

to choose between it and the disease. The patient is laid upon his back, and a ring of iron about an inch and a half across is made hot and placed upon the belly, so as to enclose the navel. The agonizing pain that ensues is said to cure the cholic on the instant.

In saying that the Hindoo physicians dose their patients chiefly with vegetable draughts, we must not forget to add that they are no strangers to the most powerful minerals. Arsenic, for instance, is said to be used among them to a much greater extent than some European physicians would deem to be either safe or desirable. It is mixed with pepper, and given in the form of a pill, in the severer cases of rheumatism, paralysis, and nervous disorders, and is said to be very efficacious.

The usual place in which the native physicians see their patients, is under a tree by a road side. Here they sit with their boxes of small powders and pills ready for use; and such mere empirics, no doubt, find, in the most limited of their collections, some one remedy for any, or all complaints.

It will happen, as in most extensive cases of quackery, that the Hindoos have some points of superiority to far more scientific nations; for it is scarcely possible to blunder boldly onward without even by sheer accident running against good fortune now and then. From the testimony of an intelligent English physician, it seems that this is the case as regards the mode in which the Hindoos treat ophthalmia and cataract, two very alarming diseases of the eye, and very common in Hindostan. In the former disease, they arrest the dangerous as well as painful inflammation, by making a thin paste of alum and lime juice. This is laid on the eyes at going to rest, and washed off in the morning with water in which tamarind leaves have been boiled; and it is said that a timely application of this remedy is the best known means of averting that terrible affliction, blindness.

In cases of cataract, the Hindoo operator makes a slight puncture close behind the iris, and through this introduces a fine instrument, with which he depresses the cataract.

FLOWER PAINTING

THE art of painting flowers is one of the most interesting and beautiful in the department of imitative art. A knowledge of botany in all its branches, a correct eye, a practised and light hand, a consummate knowledge of colours, a delicate pencil, high finish, taste, and a tact for arrangement, are all among the requisites for a painter of flowers. Van Huysum, Varelst, and two or three others, elevated this art above that of the mere botanical copyist; and one of its practitioners obtained the flattering name of the *Michael Angelo da Fiori*.

Among the ancients, according to Pliny, flowers were used as symbolical of spring; and upon many medals which represent this happy season of the year, by four children or genii, that of spring always carries a basket filled with flowers. Hope is also figured by the ancient artists and poets as holding a flower in his hand. Venus is sometimes so represented, or crowned with a garland of flowers. Persons conveying good news crowned themselves also with flowers, to indicate the happy tidings of which they were the bearers. They cast flowers in the paths of those whom they would honour, as is still the custom on coronations, and important marriages. Lovers

ornamented with festoons and garlands the houses of their mistresses. They were also carried in the *Floralia*, as is our custom still on May-day. They also crowned with flowers the victims which were led to sacrifice, and virgins when going to be married; and they also decorated the tombs of their beloved and honoured kindred with flowers, which they renewed on the anniversary of their departure from this world, as is still the custom in Roman Catholic countries, and in some of our village burial grounds. The selection of the flowers, and the manner of arranging them into garlands, constituted an art among the ancients, which had its rules and regulations; and thus the females particularly excelled in communicating their sentiments by a garland, as the Oriental nations of the present day do in communicating a love letter in a bouquet, as Lord Byron emphatically expresses it in his address to a young Greek:—

"By all those tokens, *flowers*, that tell
What words can never speak so well,
By love's alternate joy and woe,
Ζωή μου σας αγαπώ."

Many epigrams in the Anthology (*ἀνθολογία*, a collection of flowers,) make us acquainted with the names of the flowers which they mostly used in forming these crowns and garlands, and the significations of many of them. It was not only the colours, but also the odour of each flower that governed this symbolical language. In the *Ὀνειροκρίτας*, or Book of Dreams of Artemidorus, are many explanations, the symbolical meaning of a list of flowers which go to the formation of a chaplet, or garland. Flowers, also, among the ancients, contributed to the festivities and joyousness of the banquet. The revellers wore chaplets or crowns of flowers upon their heads and round their necks, the perfumes of which were not only agreeable, but considered as antidotes against intoxication. They also crowned their goblets with wreaths of aromatic flowers. Many physicians of antiquity, particularly Meresithius and Callimachus, wrote treatises on the medical virtues of chaplets of flowers worn about the head. Flowers have been used in all times as ornaments and perfumes in houses, preserved in vases or goblets, with water. Upon many ancient medals, particularly the Byzantine, flowers are thus displayed.

Among the early Christians, flowers were regarded symbolically as representing gifts of the Holy Spirit. On this account it was that at the feast of Pentecost, or Whitsuntide, the priests cast flowers from the upper ambulatories of their churches upon the congregation of the faithful assembled in the nave below; a custom which is still continued in Catholic countries, as well as the decoration of the churches with flowers, according to the season, both at Christmas and at Whitsuntide; which latter custom is observed, also, in many English Protestant churches. Flowers were also held by Catholics as symbolical of the delights of paradise, and were accordingly figured upon the glasses of the early Christians. To represent these beautiful and delightful works of Nature in painting, requires that delicacy, finish, lightness, and taste, which is so peculiarly adapted to females; and many of that sex have, consequently, succeeded in this elegant art.

GROWTH OF TREES, PLANTS, &c.

MOTION, everlasting motion, is the source and cause of all life, whether animal or vegetable; and motion cannot cease,

inasmuch as there is no centre, nor any resting place; for where there is no circumference nor any boundary there cannot be any centre: wherefore, as we have stated before, in the *Cosmologica*, bodies moving in infinite space must continue to gravitate perpetually, and in millions of years will not approach any nearer to a resting place. Systems may have a centre assigned to them by the scientific rules of learned men; but whole systems move in boundless space; for if not, the satellites and inferior orbs would soon fall into contact with their superiors, towards which, by the laws of gravitation, they continually tend. This primary motion occasions the secondary or dependent, which also affects the economy of the operations of nature on our earth; producing perpetual changes and variations, destruction and reproduction, but no such thing as annihilation. The disunited or decayed substance deposits its atoms; but motion gives action to seeds and substances, and germination ensues, so that no extermination of life takes place: all is motion and change: to stand still would be nothing less than universal DEATH. It is this same effect of motion by gravitation, that causes the growth of trees and plants, and also their periodical decay or decomposition. Their varieties depend on local and material circumstances of situation and soil, as described in our observations on the effects of climates, &c.

"Vegetation, like animal life, of which it is the first degree, consists of a series of phenomena, which have their increase, stability, and decrease: in infancy producing mosses and ferns; in adolescence the cactuses, and other incomplete plants; mounting progressively to trees."

This definition is the language of a professed naturalist; but our object at present is not to enter into an examination of the generic qualities of plants, nor the peculiar organization of trees and other vegetable productions: our design here is merely to show how nature, in her general operations, encourages the growth of trees and plants. We have before spoken of the elements—namely, those visible to our perception, being earth, water, air, and fire: with these Nature works, and by these she forms all the productions of her hands. Earth is the womb, or repository of embryo vegetation: moisture and warmth germinate life, and the air presses into gestation; as it also continues to raise and force upwards the aspiring vegetables, by impelling the feeding sap from the humid ground through the capillary passages to the tops of plants and the boughs of trees: this process is an effect of motion produced, as we shall presently show.

In all organized bodies there is what is called a *bate*, or linear conjunction of parts, between which are infinitely small interstices, like little cylinders, which admit of a passage for air and moisture; in vegetable plants and trees, this construction is observable by the stripping and splitting of them, performed not cross-ways, but longitudinally. If a piece of wood be cut across, and placed under a microscope, it will appear full of small holes or pores: those are sections of the capillaries, or small hollows forming veins, that run through the whole body, branches, and leaves of the tree or plant, from the roots to the uppermost extremities; and through these ducts, or canals, the life-sustaining elements move, and deposit the atoms that increase the bulk, add to the stature, and sustain the stability of the growing object. The way in which the ascension of the feeding-sap is effected is by gravitation, or the weight of the air on the surface of the earth, which presses the warmed or rarified air upwards, and with it the moisture to fill the space of the more subtle element above; and this operation is exactly similar to that which is called absorption, that is, a repletion of a vacuum, to preserve an equilibrium in the pressure of the air. If

this definition be not plain enough, or leave the mind unused to philosophical studies, in any perplexity, let us direct the inquirer to an observation upon any ascending element or vapour that is visible to the eye—such as smoke or flame: he will discover the theory of their motion, and will be convinced that they ascend, because they are propelled upwards by what is commonly called a draught or flue. Now what is this draught but a current of air? and do not all currents flow towards the space that is empty, from that which is overcharged? Consequently they gravitate or tend downwards; by which they displace or force upward such vapours as are composed of atoms lighter than the air by which they are elevated.

All trees, plants, and shrubs, have a property of vegetable respiration through the above cause; and they emit from their leaves or blossoms an effluvium of impregnated air, in many instances productive of sensations on the olfactory nerve, either grateful or offensive. In other instances, the breathing fluid is so thin and rarified that it produces no effect on the nostrils, and consequently gives no scent. This evaporation is caused by the fixed air in the body of the plant; which becoming volatile by motion, and expanded thereby, oozes out through all the small pores, and spreads itself in the surrounding element, causing a redolence on the air, whose diminution by heat has opened a vacuum to receive the out-pouring atoms. Those plants and herbs that give the strongest smell will soonest wither when removed from their supply of moisture, or when deprived of an open air; and the reason is obvious, because the vegetable respiration is destroyed, by separation from that which fed and increased it.

The breathing or internal motion of plants is not like that of animals, but by a sort of conveyance, and concoction of moisture into air, or of air into more expansion and subtilty of atoms, from the effects of external heat: thus the sap of trees is a current from a plenum of moisture below to a vacuum above; every fibre of the root is replenished beneath, every leaf above is evacuated by the solar rays, so that the current of the fluid is continuous. With animals, the heat is internal; the controlling motion is also internal, being that of the circulation of the blood, and the action of the lungs: this combination of effects requires a continual inhalement of aqueous, and an expulsion of phlogisticated air, because the source of effervescence is within, and at the centre. A careful consideration of these remarks will enable a common understanding, with a little reflection, to comprehend all that is necessary on this part of the subject; but let us never forget, while we contemplate the works of creation, that it is the operation alone, and not the invention, or the work itself, that we can or ought to investigate. The effect of a cause is open to insight and inquiry: the cause is divinely impervious to our sight, and the method of God's universe is too capacious for man's comprehension; he can no more discover it than he can measure boundless space, or count by years the duration of eternity.

Having briefly described the growth of trees and plants, it may afford some amusement and instruction to make a few observations upon the colour and shades of difference in the foliage of them, and even in particular leaves and parts of leaves upon the same trees and plants.

All colours are formed from the results of reflection by the rays of light on substances of different texture, and are not any thing distinct from this phenomenon; as may be observed by the *prism*, which being held before the eyes will exhibit various colours, though it has no other in itself than that of a piece of glass: the rainbow also shows several colours, though it is a reflection from a cloud only,

and, of course, that cloud is nothing but a watery substance or vapour, and void of any varied colours. The differences of colour in leaves of trees and plants is from the same cause; the rays of light striking upon them are reflected to the sight stronger or weaker, according to the texture, quality, or composition of the substance which they fall upon; and for this reason if a part of the composition be extracted the colour will change, as in the case of falling leaves; the sap being exhausted, the rays of light are not imbibed, and, therefore, what was green becomes yellow. Again, the upper surface of leaves will be of a deeper green than the under side, because the one has been more exposed to the light than the other, and the continual action of the solar rays has altered the texture of that side on which they fall, and consequently are more strongly reflected. The various shades of colour arise, therefore, from the nature of the sap or gum with which the leaves and plants are filled, and which limits them to a greater or less power of imbibing or of reflecting the rays of light; wherefore a clammy or pitchy kind of sap will always give a less reflective quality to the plant, but a more imbibing power than a thin fluid.

Some trees grow to an enormous size, especially those of slow growth, as the elm and the oak: of the latter species, many are found to exceed thirty feet in girth, and to spread their branches to an amazing extent: under its shadow the weary traveller may repose in summer sheltered from the scorching sun; but its timber, when felled, is of the noblest use, and as it was once superstitiously venerated in Britain, it is now highly esteemed, as composing the best materials for the floating bulwarks of the country. Mr. Gray has celebrated the beech in his *Elegy*, and our Saxon ancestors were often cheered by the contents of the beechen bowl. Gray thus notices the tree:—

"There at the foot of yonder nodding beech,
That wreaths its old fantastic roots so high,
His listless length at noontide would he stretch,
And pore upon the brook that bubbles by."

Trees that grow rapidly generally require much moisture; but though Mr. Gray places the beech near a brook, that site is, perhaps, better suited to the poplar or the willow, the latter of which especially delights in water, being soft and porous, and discharging freely from its leaves the effluvia of its concocted sap; but beech, like oak, thrives best in a strong soil, not of a marshy nature; Virgil says, "*Tityre tu patulæ recubans sub tegmine fagi*;"* and surely a swampy situation is not a place proper to recline upon.

The oak has often been celebrated, both by naturalists and by poets, for its majestic appearance and great usefulness. Mr. Pope has given it an eulogium, as follows:—

"Let India boast her plants; nor envy we
The weeping amber, and the balmy tree,
While by our oaks the precious loads are borne,
And realms commanded, which those trees adorn."

The oak, the chestnut, the walnut, and the hazel, once yielded food for man, and still continue to do so for animals of various kinds. Acorns are said to be an excellent food for hogs; on the leaves of some oaks the *kermes* breeds and continues attached, being a sort of vegetable animal, possessing sensation and animal organization, but appearing to a slight view as only a little round nob adbering to the leaf; yet it is a perfect animal, and may be examined by the microscope. The mistletoe and the polypodeum also grow upon the oak, and the ivy twines about its trunk.

J.

* Thou Satyr, extended beneath the shady beech.

INDIAN SUTTEES.

WHATEVER we may think of the abstract right of the English to their wonderful conquests in India, — and in the abstract we cannot defend them, — it is impossible not to foresee that the various people of that vast country will, in the end, be greatly benefited even by what now is aggression. To us, indeed, it seems that all the conquests of a barbarous by a civilized people have that redeeming quality; "there is a soul of goodness in things evil;" and even while unjust ambition is marching with giant strides and with a threatening front to an unjust and unprovoked invasion, the rampant and heartless conqueror is not uncommonly carrying with him, though quite unconsciously, the seeds of a future benefit, infinitely greater than the present injury he inflicts. The invasions of Britain by the Romans, and of England by the Normans, did far more in the way of benefiting as to the future, than of injuring during their own brief day. That India will be similarly, but far, unspeakably far, more importantly benefited, we think that no reasonable and observant person can for a moment doubt. The paganism of Hindoostan is its leprous spot. Not all the fertility of its soil, not all the wealth of its "kings barbaric," not even the ingenuity and other natural good qualities of its numerous population, can ever make India as enviable a country as it ought to be, while the plague spot of paganism remains to entail a thousand pernicious customs upon the benighted people.

One of the worst of the pernicious customs to which we allude is that of the Sutte; i.e. the voluntary immolation of the widow on the funeral pile. We speak of this immolation as being voluntary, because it certainly is so sometimes, and is always represented to be so; but there is only too shocking reason to believe that the Brahmins are not always so free from blood-guiltiness as their own representations would have us to believe.

Supposing no worse means to be used to induce the immolation of the victim, it is quite clear that ignorance is not combated against by the Brahmins; and if physical force be not frequently resorted to, it seems to be chiefly abstained from because mental weakness on the part of the victim is found quite sufficient to insure the purpose of the Brahmins being fulfilled. That this is the case, we think will be quite clear on a perusal of the following cases.

A woman of the despised *caste* of shoemakers, a woman whom, under other circumstances, the Brahmins would not have thought worthy of a second glance, finding herself, after her husband's death, much ill treated by her mother-in-law, determined upon burning herself to death. The instant that this resolution was announced by the deluded woman, she became an object of the most intense interest to the Brahmins, who spared no pains to make her resolution public, and to collect subscriptions. For two whole months she was carried from place to place in grand procession, the wealthy making her all sorts of rich presents. The king, indeed, to whom she was at length introduced, though he so far countenanced Brahminical impostures as to request this poor deluded creature to remember him in paradise, seems to have formed a shrewd guess as to what would most probably be the ultimate destination of the presents made to her; for, instead of gold or silver, diamond or pearl, or any commodity popular among the Brahmins, he gave her neither more nor less than—an orange!

The deluded woman having gone from place to place, as long as was deemed necessary, at length made her final appearance before the multitude. She was richly adorned, and was mounted on the most valued of the royal elephants,

which was led at a slow pace through all the most populous streets of the city; music, and the acclamations of the people, making the very welkin ring as the procession passed along. On arriving at the pile, they found a huge and intense fire; the heat from which was so great that even a tolerably near approach to it seemed impracticable. With an undaunted bearing, and a smiling countenance, the poor victim of a degrading superstition proceeded to divest herself of her ornaments, which she distributed among the nearest bystanders. This being done, she bade farewell to all present, ran around the glowing pile, and precipitated herself into the flames. The instant that she fell upon the pile, numerous large faggots were thrown upon her, and the musicians and the multitude set up a noise so deafening, that if folly's martyr uttered any cry, it was unheard on earth. When the body was consumed, the ashes of the pile were eagerly scrambled for by the infatuated spectators, who deemed them to be holy relics, possessed of we know not what miraculous virtues.

In this case we think it must be clear to the most careless reader, that the vanity and superstition of the unfortunate woman were so wrought upon by the artful and the fanatical that she could not in any thing like strictness of phrase be termed a voluntary sacrifice. The next case will show us that even the utmost terror and unwillingness are no bar to the completion of this cruel and revolting practice.

In the year 1710, the Rajah of Marana died; and his wives, according to custom, offered to be burnt together with his corpse. Without the city a pile was formed of wood, and the body of the deceased prince, attired in his richest garments, being laid thereupon, the pile was set on fire. As the flames rose fiercely into the air, a shout from the assembled people announced the approach of the victims, who in the full flush of life were so speedily to become sacrifices to as absurd a prejudice as ever degraded our nature. The chief of them delivered the poniard of the deceased rajah to his son, at the same time exhorting him to govern his people wisely and worthily. This done, she threw herself upon the flames. She was followed in succession by the others; but one of them, when it arrived at her turn to take the fearful leap, uttered a wild shriek of anguish and alarm, ran towards a soldier, and throwing herself into his arms, exhorted him to save her from the flames. He pushed her from him upon the pile, and at the same moment she and her fellow-victims, while uttering the most heart-rending cries, were covered by a quantity of wood, which was hurled down upon them by the bystanders; and then the Brahmins approached the pile, and performed their superstitious ceremonies as though agony and death had not been within a thousand miles of them!

We might give innumerable other instances, but the subject is too horrible to be dwelt upon without reluctance. Enough will have been said, if we have succeeded in showing that it is high time that such atrocities be put down in every part of India where England has either territory or influence. Whatever may originally have been our wrong as invaders of an unoffending people, it is our duty to use for that people's benefit the authority we have acquired among them; and we trust to live to see the day, when that England which has so nobly protected the African against violence, will interfere to protect the Asiatic against Brahminical imposture and fraud.

FOUNTAIN OF TREVI.—The fountain of Trevi receives the *Acqua Vergine*: it is a noble fountain. This is the only water which now comes to Rome by an ancient

aqueduct: it is, for the most part, under ground, which is the reason why it has been so much better preserved than any other. This is also the best water in Rome; and all the lower parts of the city being furnished from the fountain of Trevi, those who prefer good water to good air, live in those parts. It was brought from the Sabina by Agrippa, to supply the *Campus Martius*.

The abundance of fountains in Rome gives an air of coolness, life, and motion to the whole city; but it is a great mistake to conclude from thence, as many have done, that it is plentifully supplied with good water, for the reverse is really the case.

NICK NAMES.

THERE are some people who take upon themselves an insolent air of superiority, and would fain impose upon the multitude, either by boasting of their own merits, or holding up the faults and innocent peculiarities of others to public contempt and ridicule. The lowest class of these creatures is principally composed of those whose essentially vulgar minds show forth what little wit they possess in the discovery of nick-names. The first thing they seize upon is sure to be some personal defect—if a man squints, they christen him Squinting Dick, or Sam, as his name may be; if very tall, they call him Long Tom, or give him some other cognomen by which they may place him in the eyes of others at a disadvantage with themselves, without in the least caring for any pain which by so doing they inflict upon his feelings, however sensitive they may be. In fact, the more he is hurt by their brutal jokes, the more they will inflict them upon him, because it gratifies their grovelling ambition, and gives themselves and others a sense of their own power. The only mode of treating such ruffians is either to quit their company, or endeavour if possible to give them a handsome thrashing on the spot; it being impossible to bring them to a sense of impropriety by any other mode than by making very vigorous use of the *argumentum baculinum*: they are, in fact, mere brutes, and should be corrected according to their nature.

But a truce with invective. The minds of young persons are too apt to be caught by mere show; and they think that whatever makes them laugh must be exceedingly clever and worthy of imitation; hence do we find this innocent raillery, as it is termed, quite common among them. We honestly assure them, however, that, innocent as they may suppose it to be, it is a habit productive of very hurtful consequence both to themselves and those upon whom it is practised. In the first place it gives them a taste for ridicule, and often causes them to make enemies of those whose friendship would be of the greatest service to them; and its effect upon others is, either to blunt their feelings, or create a painful consciousness of degradation, which will be most strongly felt by those who possess the greatest share of real intrinsic merit, it being generally found that the most talented people are almost always endowed with a painful excess of acute sensitiveness. In proof of this we will instance the case of Lord Byron, whose personal deformity being made the object of brutal jokes and bitter sarcasm, was, as he himself gives us plainly to understand, the cause of creating that misanthropic and scornful feeling which his writings so strongly exhibit. Many

